

Indian Institute of Science,

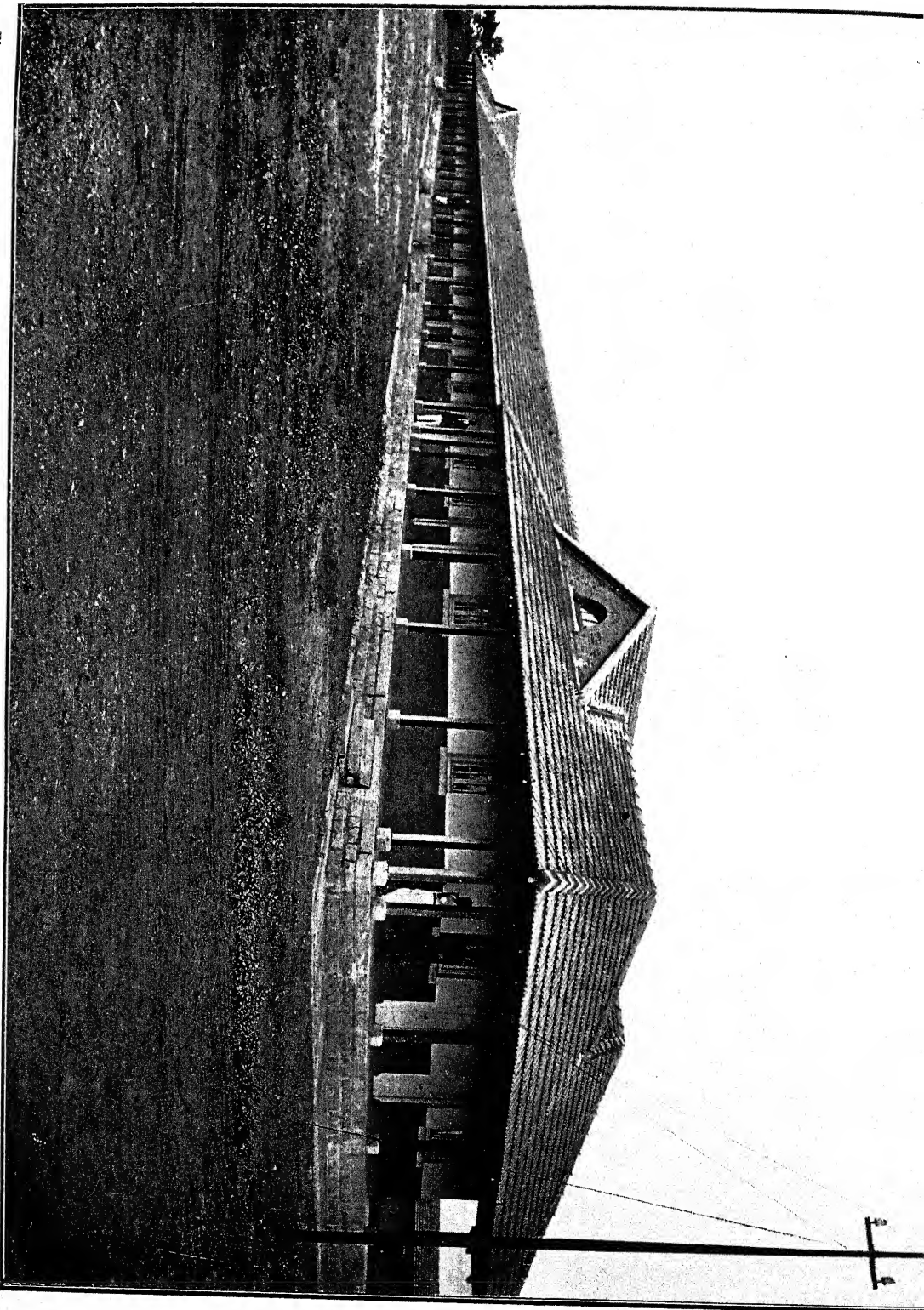
BANGALORE, INDIA.

CALENDAR,

1915-16.

Photo-Meehl, Dep't., Thomson College, Roorkee,

STUDENTS' QUARTERS.



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ALMANAC.

JULY, 1915.

1	Th.	
2	F.	
3	S.	
4	§.	
5	M.	
6	Tu.	
7	W.	Fifth Session opens.
8	Th.	
9	F.	
10	S.	
11	§.	
12	M.	
13	Tu.	
14	W.	
15	Th.	
16	F.	
17	S.	
18	§.	
19	M.	
20	Tu.	
21	W.	
22	Th.	
23	F.	
24	S.	
25	§.	
26	M.	
27	Tu.	
28	W.	
29	Th.	
30	F.	First Council appointed 1909.
31	S.	Tikacharyara Punyadivasam, Hindu Holiday.

AUGUST, 1915.

1	S.	
2	M.	
3	Tu.	
4	W.	
5	Th.	
6	F.	
7	S.	
8	S.	
9	M.	
10	Tu.	
11	W.	
12	Th.	
13	F.	Ramzan, Muhammadan Holiday.
14	S.	
15	S.	
16	M.	
17	Tu.	
18	W.	
19	Th.	
20	F.	
21	S.	
22	S.	
23	M.	Asvalayana Sravani
24	Tu.	Apastambha Sravani
25	W.	} Hindu Holidays.
26	Th.	
27	F.	
28	S.	
29	S.	
30	M.	
31	Tu.	

SEPTEMBER, 1915.

1	W.	
2	Th.	
3	F.	
4	S.	
5	S.	
6	M.	
7	Tu.	
8	W.	
9	Th.	
10	F.	
11	S.	
12	S.	
13	M.	
14	Tu.	
15	W.	
16	Th.	
17	F.	
18	S.	
19	S.	
20	M.	
21	Tu.	
22	W.	Anantha Chaturdasi, Hindu Holiday.
23	Th.	
24	F.	
25	S.	
26	S.	
27	M.	
28	Tu.	
29	W.	
30	Th.	

OCTOBER, 1915.

1	F.	
2	S.	
3	S.	
4	M.	
5	Tu.	
6	W.	
7	Th.	
8	F.	Mahalaya Amavasya, Hindu Holiday.
9	S.	Commencement of Dasara, Hindu Holiday.
10	S.	
11	M.	
12	Tu.	
13	W.	First Term ends.
14	Th.	Commencement of Dasara Recess.
15	F.	
16	S.	
17	S.	
18	M.	Vijaya Dasami, Hindu Holiday.
19	Tu.	} Bakrid, Muhammadan Holidays.
20	W.	
21	Th.	
22	F.	
23	S.	
24	S.	
25	M.	End of Dasara Recess.
26	Tu.	Second Term begins.
27	W.	
28	Th.	
29	F.	
30	S.	
31	S.	

NOVEMBER, 1915.

1	M.	
2	Tu.	
3	W.	
4	Th.	
5	F.	
6	S.	Dipavali, Hindu Holiday.
7	S.	
8	M.	Balipadyami, Hindu Holiday.
9	Tu.	
10	W.	
11	Th.	
12	F.	
13	S.	
14	S.	
15	M.	} Moharam, Muhammadan Holidays.
16	Tu.	
17	W.	
18	Th.	Last day of Moharam, General Holiday.
19	F.	
20	S.	
21	S.	
22	M.	
23	Tu.	
24	W.	
25	Th.	
26	F.	
27	S.	
28	S.	
29	M.	
30	Tu.	

DECEMBER, 1915.

1	W.
2	Th.
3	F.
4	S.
5	§.
6	M.
7	Tu.
8	W.
9	Th.
10	F.
11	S.
12	§.
13	M.
14	Tu.
15	W.
16	Th.
17	F.
18	S.
19	§.
20	M.
21	Tu.
22	W.
23	Th.
24	F.
25	S.
26	§.
27	M.
28	Tu.
29	W.
30	Th.
31	F.

Second Term ends.

Commencement of Christmas Recess.

JANUARY, 1916.

1	S.	
2	§.	End of Christmas Recess.
3	M.	Third Term begins.
4	Tu.	
5	W.	
6	Th.	
7	F.	
8	S.	
9	§.	
10	M.	
11	Tu.	
12	W.	
13	Th.	
14	F.	
15	S.	
16	§.	
17	M.	
18	Tu.	
19	W.	
20	Th.	
21	F.	
22	S.	
23	§.	
24	M.	
25	Tu.	
26	W.	
27	Th.	
28	F.	
29	S.	
30	§.	
31	M.	

FEBRUARY, 1916.

1	Tu.	Corner Stone of Library laid by H. H. the Maharaja of Mysore, 1911.
2	W.	
3	Th.	
4	F.	
5	S.	
6	S.	
7	M.	
8	Tu.	
9	W.	
10	Th.	
11	F.	
12	S.	
13	S.	
14	M.	
15	Tu.	
16	W.	
17	Th.	
18	F.	
19	S.	
20	S.	
21	M.	
22	Tu.	
23	W.	
24	Th.	
25	F.	
26	S.	
27	S.	
28	M.	
29	Tu.	

MARCH, 1916.

1	W.	
2	Th.	
3	F.	
4	S.	
5	S.	
6	M.	
7	Tu.	
8	W.	
9	Th.	
10	F.	
11	S.	
12	S.	
13	M.	
14	Tu.	
15	W.	
16	Th.	
17	F.	
18	S.	
19	S.	
20	M.	
21	Tu.	
22	W.	
23	Th.	First Meeting of the Provisional Committee, 1908.
24	F.	
25	S.	
26	S.	
27	M.	
28	Tu.	
29	W.	End of the Session, 1915-16.
30	Th.	
31	F.	End of the Financial and Academic year, 1915-16.

APRIL, 1916.

1	S.
2	S.
3	M.
4	Tu.
5	W.
6	Th.
7	F.
8	S.
9	S.
10	M.
11	Tu.
12	W.
13	Th.
14	F.
15	S.
16	S.
17	M.
18	Tu.
19	W.
20	Th.
21	F.
22	S.
23	S.
24	M.
25	Tu.
26	W.
27	Th.
28	F.
29	S.
30	S.

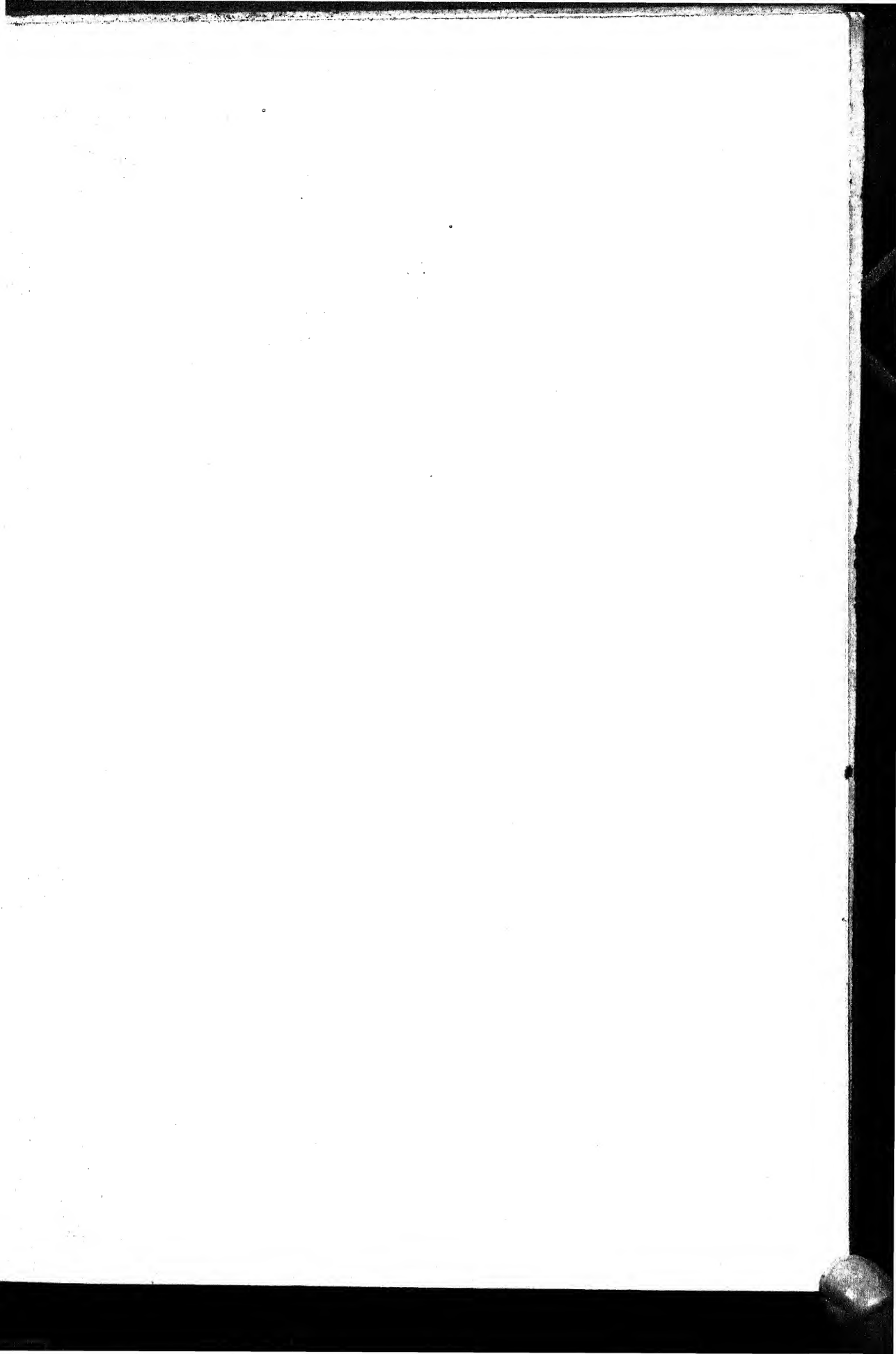
MAY, 1916.

1	M.
2	Tu.
3	W.
4	Th.
5	F.
6	S.
7	§.
8	M.
9	Tu.
10	W.
11	Th
12	F.
13	S.
14	§.
15	M.
16	Tu.
17	W.
18	Th.
19	F.
20	S.
21	§.
22	M.
23	Tu.
24	W.
25	Th.
26	F.
27	S.
28	§.
29	M.
30	Tu.
31	W.

Vesting Order published in the *Gazette of India*, 1909.

JUNE, 1916.

1	Th.	
2	F.	
3	S.	
4	S.	
5	M.	
6	Tu.	
7	W.	
8	Th.	
9	F.	
10	S.	
11	S.	
12	M.	
13	Tu.	
14	W.	
15	Th.	
16	F.	
17	S.	
18	S.	
19	M.	
20	Tu.	
21	W.	
22	Th.	
23	F.	
24	S.	
25	S.	
26	M.	
27	Tu.	
28	W.	
29	Th.	
30	F.	



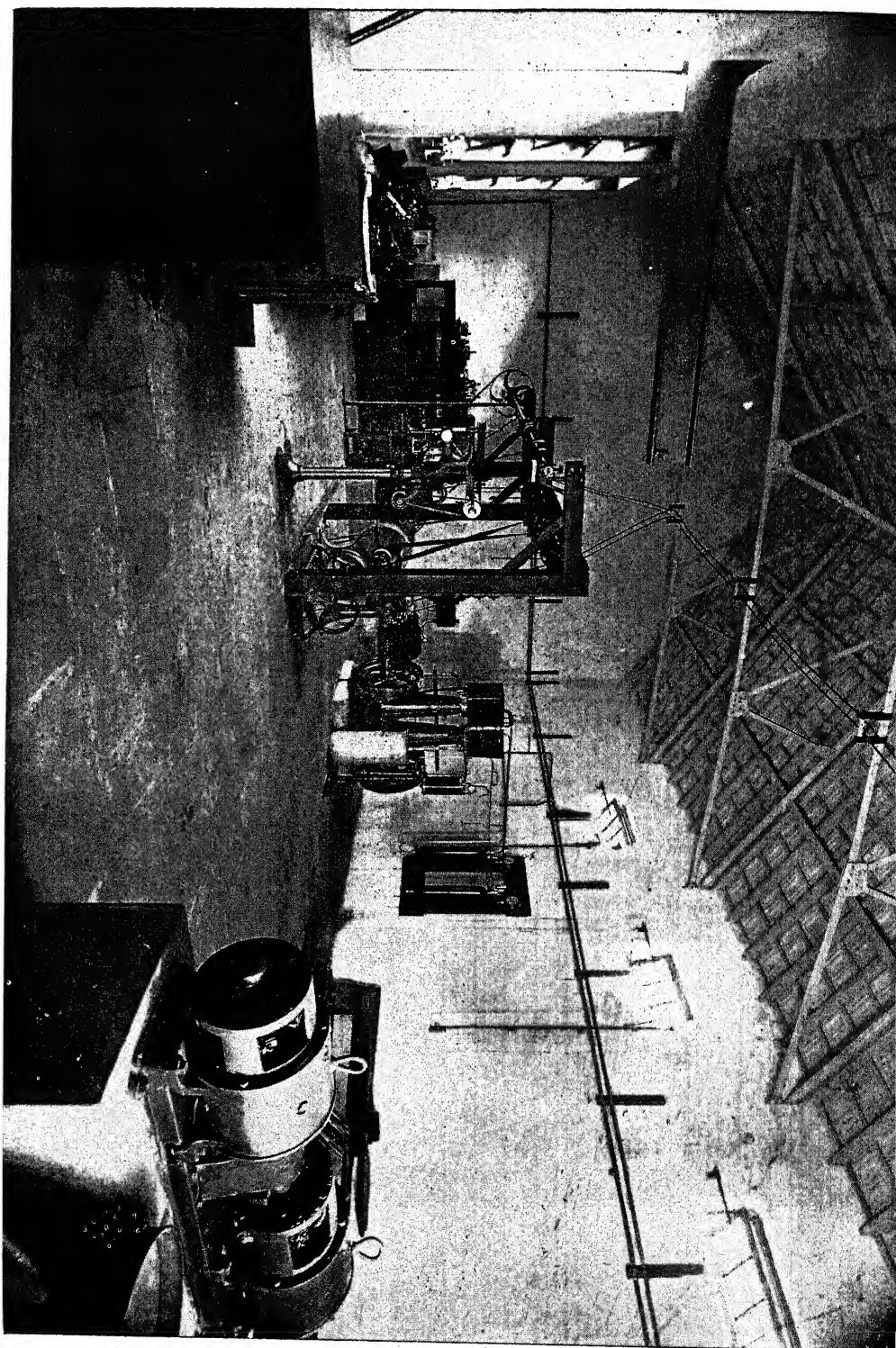


Photo-Mechl. Dept., Thomson College, Roorkee.

DEPARTMENT OF GENERAL CHEMISTRY-MACHINE ROOM.

INTRODUCTION.

THE Indian Institute of Science owes its origin to the genius and munificence of the late Mr. Jamsetjee Nusserwanjee Tata who some time about the year 1896 proposed to vest in trustees properties to the capital value of thirty lakhs of rupees for the purpose of endowing a Research Institute for India. Mr. Tata consulted with leading authorities both in England and in India, and with the assistance of a Provisional Committee nominated by himself, and presided over by the Vice-Chancellor of the Bombay University, he drew up a scheme which was laid before Lord Curzon on the 31st December, 1898, the day after his arrival in India. In the following year the scheme was formally brought to the notice of Government, who expressed their readiness to proceed with legislation as soon as the scheme should be matured.

In the course of the years 1900 and 1901, Mr. Tata's proposals were examined and reported upon by Sir William Ramsay, who visited India at the invitation of Mr. Tata's committee, and subsequently by Professor Orme Masson and Colonel Clibborn, who were placed on deputation for the purpose by the Government of India. In the meantime, the Government of Mysore had offered, through the late Sir Sheshadri Iyer, to place a site of 371 acres in Bangalore at the disposal of the future governing body of the Institute, and to contribute the sum of five lakhs of rupees towards initial expenses. Shortly after the publication of Prof. Orme Masson and Col. Clibborn's report, the Mysore Government informed the Provisional Committee that they proposed to make an annual contribution to the Institute of thirty thousand rupees for ten years, and at a later date decided to increase the annual subsidy to fifty thousand rupees without limit of time. The Government of India undertook simultaneously to make an annual grant of Rs. 30,000 to the Institute, and as an agreement had been arrived at upon all general questions relating both to the organisation of the Institute and to the management of the endowment properties, it appeared as if the Institute could be brought into existence without further delay, when on the 19th May, 1904, Mr. J. N. Tata died while on a visit to Europe.

Though the death of Mr. Tata deprived the Institute of the benefit of the wisdom and experience of its founder, it did not result in more than a temporary delay in carrying out the scheme, for in a letter addressed to the Government of India, Sir D. J. Tata and Mr. R. J. Tata at once announced their intention of giving effect to their late father's wishes. They immediately proceeded to take such steps as were necessary to complete the arrangements for the transfer of the endowment properties to the Treasurer of Charitable Endowments for Bombay; and in the course of the following year, the Government of India, acting upon their suggestion, moved the Secretary of State to invite the assistance of the Royal Society in nominating a Director. Dr. Morris W. Travers, F.R.S., who was appointed to the post in August 1906, arrived in India in November of that year, and at once proceeded with the work of maturing a scheme for the organisation of the Institute in consultation with the Government of India, the Government of His Highness the Maharaja of Mysore, and Sir D. J. Tata and Mr. R. J. Tata.

In January 1908, Dr. Alfred Hay, M.I.E.E., and Mr. Norman S. Rudolf, M.Sc., F.I.C., were appointed to the chairs of Electrical Technology and Applied Chemistry, respectively, and in March of that year, His Excellency the Patron was pleased to appoint a Provisional Committee consisting of the Hon'ble Mr. S. M. Fraser, C.I.E., Mr. V. P. Madhava Rao, C.I.E., Mr. H. J. Bhabha, M.A., Mr. B. J. Padshah, Dr. Morris W. Travers, F.R.S., Professor Alfred Hay, D.Sc., and Professor Norman S. Rudolf, M.Sc., to conduct the affairs of the Institute pending the promulgation of the scheme for the management of the Institute. The Committee met at once, and after considering a Report by the Director and plans for laboratories prepared by Messrs. C. F. Stevens & Co., of Bombay, they signed a contract for the construction of the buildings and gave orders for the work to be proceeded with forthwith.

The scheme adopted by the Provisional Committee provided for six chairs, but it was decided that at the outset accommodation should be provided for four departments only, namely those of General Chemistry, Organic Chemistry, Applied Chemistry, and Electrical Technology.

As the Provisional Committee had only limited powers, work was proceeded with slowly, but when the Vesting Order was signed on

the 27th May, 1909, the Council, which shortly afterwards came into being, gave orders for the construction and equipment of the buildings to be carried out as quickly as possible. The Institute was opened and the first students were admitted to the departments of General Chemistry, Applied Chemistry and Electro-technics on the 24th July, 1911, and the department of Organic Chemistry was opened in September of the same year.

The Indian Institute of Science is a postgraduate university institution and has for its particular object the promotion of advanced studies and original research with special regard to the interests of India. Though its scope is in no way limited by its constitution, it is the policy of the Council to make, in the first instance, full provision for study and research in such branches of pure and applied science as are more directly applicable to Indian arts and industries. It is their object to create a homogeneous institution in which the departments shall be at once interdependent and capable of co-operating in the solution of Indian problems, and shall be at the same time under the charge of officers each of whom, as an expert in his own branch of learning, will be entirely responsible for the conduct of his department. While financial considerations prohibit the Council for the time being from adopting a wider policy, they will be glad to receive and administer donations or endowments for any purpose coming within the scope of a university.

The Council have decided to offer a certain number of entrance and research scholarships to students. They have also decided to charge no fees, beyond such as are necessary to cover the expense of maintaining the students' quarters. So far as there may be accommodation, they welcome to the Institute all those who are able and willing to take advantage of such facilities for study and research as they may be able to provide.

VESTING ORDER.

*In the matter of the Charitable Endowments Act, 1890,
and*

In the matter of the Indian Institute of Science.

WHEREAS Jamsetjee Nusserwanjee Tata, late of Bombay, Parsee gentleman, some time before his death, which took place on the 19th day of May 1904, made a proposal to the Government of India for founding an Institute of Research in India and endowing such Institute with immoveable properties in the City of Bombay producing an annual net rental of not less than Rs. 1,25,000 and applied to the said Government for aid to and co-operation in that scheme AND WHEREAS the lands described in Schedule C hereto have been selected for the location of the said Institute and the Government of His Highness the Maharaja of Mysore by Resolution bearing No. G-5639-G. M. 232-06-9 and dated 14th March 1907 published in the Mysore Gazette, copy of which Resolution is given in Schedule D hereto assigned to the Governor-General of India in Council with effect from the 14th day of March 1907 the exclusive management of and full jurisdiction over the said lands for so long as the said lands are used for the purposes of the said Institute AND WHEREAS the Government of His Highness the Maharaja of Mysore has by letters dated 26th day of July and ^{26th}_{25th} day of December 1905, copies of which collectively are given in Schedule E hereto agreed to supplement the income of the said Institute by an annual permanent grant of Rs. 50,000 contingent upon the location of the said Institute in Bangalore and by letter dated 16th of November 1901 copy whereof is given in Schedule F hereto has also agreed to provide a sum of Rs. 5,00,000 towards the construction and erection of the buildings of the said Institute and other initial expenditure required for the purposes of the said Institute AND WHEREAS the Government of India have by letter to the Government of Bombay No. 156 dated 28th February 1905 an extract wherefrom is given in Schedule G hereto agreed to supplement the income for the time being of the said Institute by an annual grant to be made by that Government equivalent to one equal half of the income of the said Institute from time to time derived from "local assets" as defined in paragraph 5 of the said letter, but so that the total amount of such grant shall not at any time exceed Rs. 1,50,000 and also to make a grant of Rs. 2,50,000 towards the construction of the necessary buildings and other initial expenditure

required for the purposes of the said Institute AND WHEREAS in pursuance and for the purpose of carrying into effect the said proposal Dorabjee Jamsetjee Tata and Ruttonjee Jamsetjee Tata the sons and Executors and residuary legatees of the said Jamsetjee Nusserwanjee Tata have made an application to the Governor-General in Council that the properties specified in Schedule *A* hereto with the benefit of and subject to the covenants, agreements, conditions and terms set forth in Schedule *B* hereto may in pursuance of the provisions of the Charitable Endowments Act 1890 (Act VI of 1890) be vested in the Treasurer of Charitable Endowments for the territories subject to the Government of Bombay upon the terms as to the application of the said property and the income thereof hereinafter referred to which terms have been agreed upon between the Governor-General in Council and the said Dorabjee Jamsetjee Tata and Ruttonjee Jamsetjee Tata.

Now in pursuance and by virtue of Sections 4 and 7 of the Charitable Endowments Act 1890 His Excellency the Governor-General of India in Council hereby orders that the properties specified in Schedule *A* hereto annexed with the benefit of and subject to the covenants, agreements, conditions and terms set forth in Schedule *B* hereto annexed be and the same are hereby vested in the Treasurer of Charitable Endowments for the Territories subject to the Government of Bombay upon the following terms, that is to say, that the said lands in or near Bangalore shall be used for the erection of the buildings of the said Institute (intended to be called and known by the name of the Indian Institute of Science) and that the said land and buildings shall be appropriated and occupied in perpetuity for the purposes of the said Institute that the said sums of Rs. 5,00,000 and Rs. 2,50,000 shall be expended towards the construction and erection of the buildings of the said Institute and other initial expenditure of the said Institute and that the balance of the said funds in the hands of the said Provisional Committee, the said annual grant of Rs. 50,000 by the Government of His Highness the Maharaja of Mysore and such grant as may be annually made by the Government of India and also the income of the immoveable properties in Bombay described in Schedule *A* hereto shall be collected and received by the persons appointed for the purpose under the Scheme settled under Sections 5 and 7 of the said Act and hereto annexed and marked with the letter *H* to be by them applied in the manner set forth in the said Scheme.

H. A. STUART,

Secretary to the Government of India.

Schedules A and B.

Relating to the Endowment Properties in Bombay.

Schedules C and D.

Relating to the land assigned to the Institute by the Government of His Highness the Maharaja of Mysore.

Schedules E, F and G.

Correspondence relating to the annual grants by the Government of India and by the Government of His Highness the Maharaja of Mysore to the Institute.

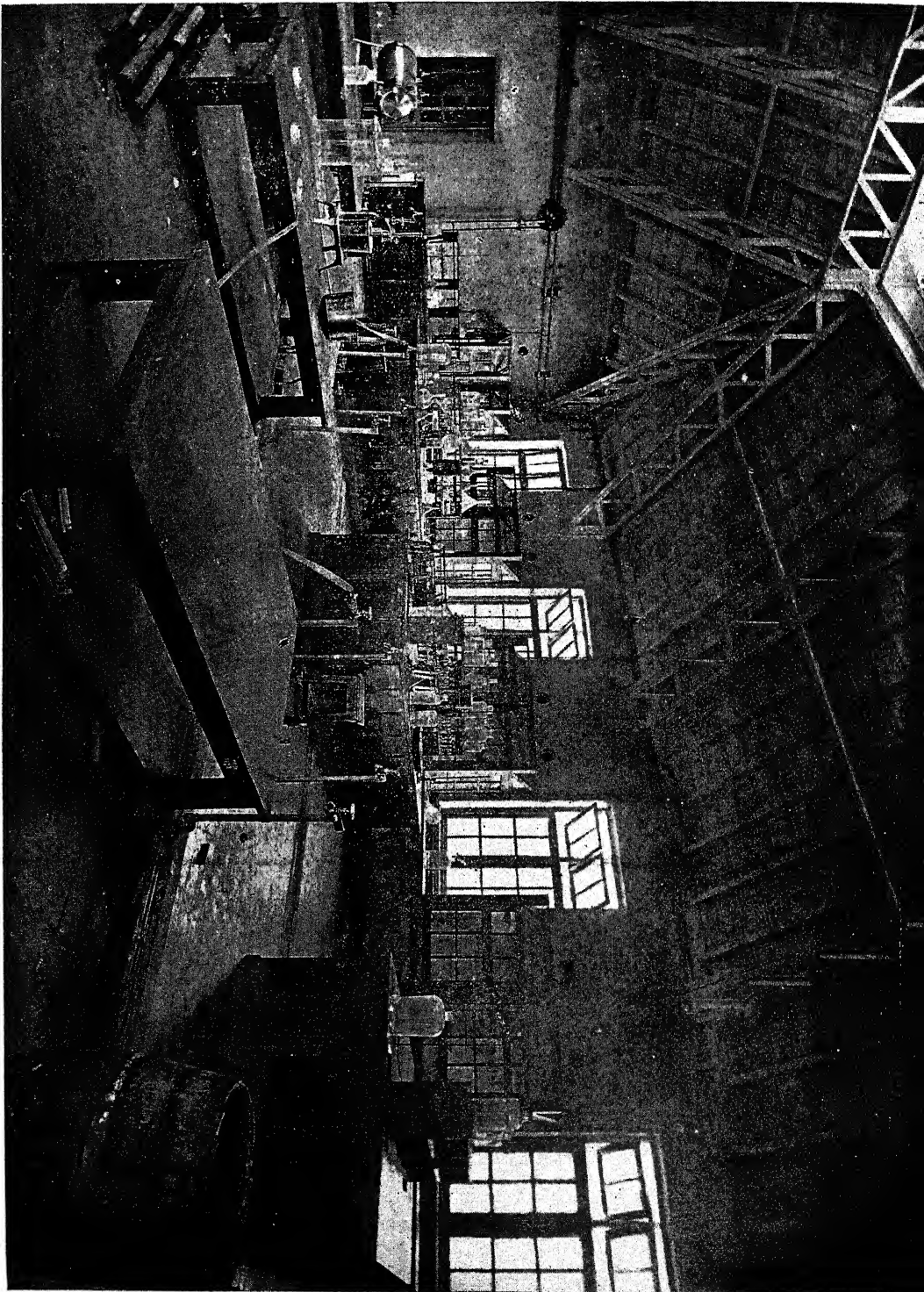


Photo-McCall, Dept., Thomson College, Roanoke.

DEPARTMENT OF APPLIED CHEMISTRY.

Schedule H.

Scheme for the Administration and Management of the Properties and Funds of the Indian Institute of Science.

[REGULATIONS.]

WHEREAS by a Vesting Order made by the Governor-General of India in Council under the power conferred by the Charitable Endowments Act (VI of 1890), by Notification No. 433 in the "Gazette of India" published on the twenty-seventh day of May 1909 certain immoveable properties in Bombay (particularly described in Schedule A to the said Vesting Order) were on the application of Dorabjee Jamsetjee Tata and Ruttonjee Jamsetjee Tata vested in the Treasurer of Charitable Endowments for the Territories subject to the Government of Bombay upon the terms as to the application of the same and the income thereof therein set forth, that is to say, that the income of the said properties or of any other investments for which they may be exchanged under Section 10 of the Charitable Endowments Act, 1890, shall be collected and received by the persons appointed for the purpose under a Scheme therein referred to and settled under Section 5 of the said Act being the present Scheme and applied in accordance with the provisions of such Scheme. Now it is hereby declared that the terms of the Scheme so settled as aforesaid are as follows :—

1. The corpus of the immoveable properties in Bombay particularly described in Schedule A hereto annexed shall remain intact subject only to a power of realization for the purposes of changes of investment. Such changes the said Treasurer of Charitable Endowments shall be at liberty to make but only on the recommendation of the Board of Management hereinafter mentioned and in accordance with Section 10 of the Charitable Endowments Act and not otherwise.

2. The net income of the said properties or of any other investments for which they may be exchanged shall be devoted to the establishment and maintenance of the said Institute and shall be collected and received as hereinafter mentioned, and paid to the Council hereinafter mentioned.

3. The object of the Institute shall be to establish Chairs and Lectureships in Science and Arts especially with a view to the promotion of original investigations in all branches of knowledge and their utilization for the benefit of India and to provide and to assist in the provision of suitable libraries, laboratories, and all other necessary appliances.

4. The Institute shall have the power to take over from Government and other public bodies or private individuals willing to transfer the same all such libraries, laboratories, museums, collections, together with any endowments or other funds appertaining to them together with any attendant obligations and engagements, if any, provided always that the Institute does not become affiliated to or grant affiliation to or incur responsibility for other Institutions.

5. The Institute shall have power to apply to students at any time preliminary to or during the time that they are attendant on its courses such tests as shall be from time to time prescribed. It shall have the power to confer the title of Fellow or Associate and to endow such Fellowships or Associateships and to grant certificates to students who have completed the prescribed courses of study.

6. The management of the Institute shall vest in—

- (a) The Patron and the Vice-Patrons.
- (b) A Court of Visitors.
- (c) A Council.
- (d) A Senate.

7. His Excellency the Viceroy of India for the time being shall be *ex-officio* Patron of the Institute.

8. The Heads of the local Governments of India for the time being shall be *ex-officio* Vice-Patrons of the Institute.

9. The Court of Visitors shall consist of the following persons, namely:—

Firstly.—Two representatives of the Government of India.

Secondly.—Two representatives of the Government of His Highness the Maharaja of Mysore.

Thirdly.—The said Dorabjee Jamsetjee Tata during his life and after his death and during the life of such person as shall be appointed or indicated in that behalf in any instrument in writing executed by him during his lifetime or in his last will or any codicil thereto the nominee of such person.

Fourthly.—The said Ruttonjee Jamsetjee Tata during his life and after his death and during the life of such person as shall be appointed or indicated in that behalf in any instrument in writing executed by him during his lifetime or by his last will or any codicil thereto the nominee of such person.

Fifthly.—Two representatives of the said Dorabjee Jamsetjee Tata and Ruttonjee Jamsetjee Tata or the survivor of them or after their death of the nearest major male descendant for the time being of Nusserwanjee Ruttonjee Tata, the father of the said Jamsetjee Nusserwanjee Tata, or, if there be more than one such major male descendant in an equal degree of propinquity to the said Nusserwanjee Ruttonjee Tata, then, of the eldest of such male descendants in the eldest line from the said Nusserwanjee Ruttonjee Tata. In the case of dispute as to who shall be called such descendant for the purpose of the nomination aforesaid, the same shall be referred to the Patron whose decision shall be binding and conclusive.

Sixthly.—One nominee of each donor of a capital sum of not less than Rs. 2,00,000.

Seventhly.—One nominee of each person who shall agree to pay annually a sum of not less than Rs. 15,000 for a period of not less than five years. The right of nomination shall not extend beyond the period of such donation.

Eighthly.—Persons appointed by the Patron not exceeding six in number.

Ninthly.—One person appointed by each of the Vice-Patrons.

Tenthly.—The Director-General of the Indian Medical Service for the time being and the Directors of Public Instruction to the local Governments of India for the time being.

Eleventhly.—The Director and all the Professors but not the Assistant Professors of the Institute.

Twelfthly.—One representative elected by the Senate of each of the Universities of India established and incorporated by Act of the Governor-General of India in Council.

Thirteenthly.—Representatives of Science and Learning in India not exceeding ten in number elected by the Council.

10. The Council shall consist of the following persons, namely :—

Firstly.—The Director *ex-officio*.

Secondly.—Professors (but not the Assistant Professors) of the Institute, not exceeding four in number nominated by the Senate.

Thirdly.—One representative of the Government of India.

Fourthly.—One representative of the Government of His Highness the Maharaja of Mysore.

Fifthly.—One representative of the said Dorabjee Jamsetjee Tata and after his death the representative of such person or persons as shall be appointed or indicated or after the death of such appointee in that behalf by any instrument in writing executed by him during his lifetime or by his last will or any codicil thereto and in default of such appointment or indication, the representative of the nearest major male descendant for the time being of Nusserwanjee Ruttonjee Tata, the father of the said Jamsetjee Nusserwanjee Tata, or, if there be more than one such major male descendant in an equal degree of propinquity to the said Nusserwanjee Ruttonjee Tata, then of the eldest of such male descendants in the eldest line from the said Nusserwanjee Ruttonjee Tata. In the case of dispute as to who shall be called such descendant for the purpose of the nomination aforesaid, the same shall be referred to the Patron whose decision shall be binding and conclusive.

Sixthly.—One representative of the said Ruttonjee Jamsetjee Tata and after his death the representative of such person

or persons as shall be appointed or indicated or after the death of such appointee in that behalf by any instrument in writing executed by him during his lifetime or by his last will or any codicil thereto and in default of such appointment or indication, the representative of the nearest major male descendant for the time being of Nusserwanjee Ruttonjee Tata, the father of the said Jamsetjee Nusserwanjee Tata, or, if there be more than one such major male descendant in an equal degree of propinquity to the said Nusserwanjee Ruttonjee Tata, then of the eldest of such male descendants in the eldest line from the said Nusserwanjee Ruttonjee Tata. In the case of dispute as to who shall be called such descendant for the purpose of the nomination aforesaid, the same shall be referred to the Patron whose decision shall be binding and conclusive.

Seventhly.—Three nominees of the Court of Visitors.

11. The Senate shall consist of the Director as Chairman, the Professors, and such Assistant Professors and Readers as the Council acting on the recommendation of the Senate may appoint.

12. The administration of the properties in Bombay shall be vested in a Board of Management consisting of—

Firstly.—The Collector of Bombay for the time being or such other officer as the Government of Bombay may appoint.

Secondly.—One representative of the said Dorabjee Jamsetjee Tata and Ruttonjee Jamsetjee Tata or of the survivor of them or after their death of the nearest major male descendant for the time being of Nusserwanjee Ruttonjee Tata, the father of the said Jamsetjee Nusserwanjee Tata, or, if there shall be more than one such male descendant in an equal degree of propinquity to the said Nusserwanjee Ruttonjee Tata, then of the eldest of such male descendants in the eldest line from the said Nusserwanjee Ruttonjee Tata. In the case of dispute as to who shall be called such descendant for the purpose aforesaid, the same shall be referred to the Patron whose decision shall be binding and conclusive.

Thirdly.—One nominee of the Government of Bombay who shall be a merchant of high standing resident in Bombay.

13. Every member of the Court of Visitors, other than *ex-officio* members, shall hold office for five years from the commencement of the year in which the appointment is made, and at the end of his term of office shall be eligible for re-appointment, but in order to obviate difficulties owing to the demission from office of all the members other than *ex-officio* members at one time, certain of those first appointed shall hold office as follows :—

(a) Those persons first appointed by the Patron shall hold office for four years.

(b) Those persons first appointed by the Vice-Patrons shall hold office for three years.

14. Every member of the Council not being an *ex-officio* member shall hold office for three years from the commencement of the year in which the appointment was made and at the end of each term of office shall be eligible for re-appointment.

15. Every member of the Board of Management shall hold office for three years from the date of his appointment and at the end of each term of office shall be eligible for re-appointment.

16. Any member of the Court of Visitors except the said Dorabjee Jamsetjee Tata and Ruttonjee Jamsetjee Tata or any member of the Council or of the Board of Management who is continuously absent from India for more than one year shall be considered to have resigned his office. In the case in which the appointment is made or confirmed by the Patron he shall have power to reinstate the individual holding the appointment in his office.

17. In the event of the death or resignation of any of the persons of whom the Court of Visitors, the Council or the Board of Management shall consist before the term of office of such persons has expired, the person or authority by whom the original appointment was made may appoint another person to hold office for the unexpired residue of the term for which the person dying or resigning was originally appointed.

18. No vacancy in the Court of Visitors, the Council or the Board of Management shall invalidate the acts done or the business transacted by those bodies during the period of vacancy or vacancies and all acts done or business transacted by the members of the Court of Visitors or of the Council or of the Board of Management, as the case may be, present at a meeting, shall be valid notwithstanding any defect there may be in the constitution of such Court, Council or Board.

19. The Council shall be the executive body of the Institute subject to the conditions laid down in these regulations.

20. Subject to these regulations the Council shall frame bye-laws dealing with the following matters :—

- (1) The quorum to be required at meetings of the Council and Senate and the conduct of business at such meetings.
- (2) The date of commencement and the duration of the Session of the Institute and the date of commencement and duration of the terms into which the Session may be divided.
- (3) The finances, investments and accounts of the Institute.
- (4) The payment and amount of fees to be exacted within the Institute.
- (5) The terms and tenure of appointment, duties, emoluments, allowances and superannuation allowances of the Director, the Professors and other Officers of the Institute and its permanent servants.
- (6) The rules of discipline to be observed within the Institute.
- (7) The courses of study and research within the Institute.
- (8) The award of Certificates and of the title of Fellow or Associate whether honorary or endowed.
- (9) The admission of students to the Institute.
- (10) The person or persons by whom and the form in which contracts by or on behalf of the Institute may be entered into varied or discharged and documents signed or executed.

- (11) All such other matters as may be required or authorized under these regulations.

Such bye-laws and any additions to or alteration in the same when sanctioned by the Patron shall be effective and binding and subject thereto four members of the Council or two members of the Senate shall form a quorum.

21. The net income derived from the properties as provided in clause 39 of these regulations from the grants made to the Institute by the Government of India and by the Government of His Highness the Maharaja of Mysore and from all other sources shall be received by the Council and shall be dealt with in the manner provided in these regulations or under bye-laws. The Council shall regulate the expenditure and manage the accounts of the Institute which shall be audited annually and in such a manner as the Patron shall direct.

22. Any subscriptions or annual donations for the purposes of the Institute shall be received by the Council and shall be treated as part of the income for the year in which they are received. No subscriptions or donations shall be accepted if they are accompanied by conditions inconsistent or in conflict with the nature, objects and provisions of this Scheme.

23. The Council shall have charge of the unapplied income belonging to the Institute and shall have power to utilize such unapplied income in the purchase of Government Promissory Notes or other Public Securities admissible under the Indian Trusts Act which shall be vested in the said Treasurer. Such unapplied income shall be available for expenditure in the next or in any subsequent year, but it shall not be taken into account in calculating the amount to be contributed in such subsequent years by the Government of India.

24. The Council shall have the power to accept funds or properties for the purposes of endowment of the Institute provided that such funds or properties are unaccompanied by conditions inconsistent with the nature, objects or provisions of this Scheme. Such funds or properties shall be vested in the said Treasurer under the terms and conditions as to the application thereof provided in Section 2 of these regulations.

25. The Council shall, for every appointment of a Director subsequent to the appointment of Dr. MORRIS W. TRAVERS, F.R.S., who is hereby appointed the first Director of the Institute with effect from the 16th November 1906, and also of a Professor in any branch of learning for which a Chair exists or is created subsequent to the appointment of Dr. A. HAY, D. Sc., M.I.E.E., Professor of Electrical Technology, and NORMAN S. RUDOLF, Esq., M. Sc., F.I.C., Professor of Applied Chemistry, who are hereby appointed to be Professors of Electrical Technology and Applied Chemistry respectively with effect from the 30th January 1908, nominate a Committee to assemble in England. Two members of such Committee shall whenever practicable be representatives of that branch of learning in which the appointment is to be made. The Committee shall send a name or names together with their recommendations to the Council.

26. The Senate may suggest to the Council the name of any person teaching or superintending a course of study or research in connection with the Institute for the appointment referred to in the last section and the Council shall submit such suggestion to the Committee.

27. The Council shall make the appointment from among the persons so recommended and such appointments shall be subject to confirmation by the patron.

28. Appointments on the teaching staff below the rank of a Professor shall be made by the Council subject to confirmation by the Patron. In making such appointments the Council shall consider the recommendations of the Senate.

29. In cases in which financial or other considerations do not admit of the appointment of a Professor or an Assistant Professor the Council acting on the recommendation of the Senate may appoint a Reader in any Branch of learning for a limited period.

30. The Council shall regulate the admission to the Institute of students and of other persons who may apply for permission to make use of its laboratories and libraries. Certificates of study shall be granted by the Council and fellowships shall be conferred subject to confirmation by the patron.

31. The Council may on its own initiative suspend any Student, Fellow or Member of the Teaching Staff of the Institute, and may also

dismiss any Student, Fellow or Member of the Teaching Staff other than the Director or a Professor, but no Director or Professor shall be dismissed without the sanction of the Patron. On requisition being made by the Standing Committee hereinafter constituted to the Patron in that behalf and on such requisition being approved by him and communicated to the Council the Council shall pending inquiry suspend any Student, Fellow or Member of the Teaching Staff including the Director and the Professors, and after enquiry has been made in the manner provided in Section 34 of these regulations the Patron may order the dismissal of such person.

32. Subject to confirmation by the Patron the Council may remove from the Register of the Institute the name of any person entered thereon who shall have been convicted of what in their opinion constitutes a serious offence.

33. Not later than six weeks after the commencement of the first term of each session as prescribed by bye-laws the Council shall submit to the Patron, to the Vice-Patrons and to each member of the Court of Visitors a report which shall include :—

- (a) An account of the work of the Institute for the previous session.
- (b) An audited balance-sheet showing the income and expenditure for the previous session.
- (c) A budget estimate for the current session.
- (d) A copy of the report submitted by the Board of Management.

34. Either on his own initiative or on the receipt of a requisition signed by at least five members of the Court of Visitors desiring that any matter relating to the Institute be the subject of enquiry the Patron may order :—

- (a) That a Committee appointed by him from among the members of the Court of Visitors shall meet at such time and place as he shall appoint to consider and to report to him on the matter, or
- (b) That the matter be referred to the Royal Society for their opinion, or
- (c) That the matter be referred to the Council for their opinion.

On the receipt of the report from the Committee of the Court of Visitors, from the Royal Society or from the Council as the case may be, the Patron shall pass such order as he may think fit and that order shall be final.

35. There shall be a Standing Committee of the Court of Visitors to be from time to time nominated from amongst the members of the Court as follows, namely, one who shall be the Chairman, by the Patron, one by the Government of India, one by the Mysore Government and one by the said Messrs. Dorabjee Jamsetjee Tata and Ruttonjee Jamsetjee Tata or the survivor of them and after the death of such survivor by any person appointed in that behalf by such survivor in any instrument in writing executed by him during his lifetime or in his last will or any codicil thereto and in default of such appointment or indication or after the death of such appointee, by the nearest major male descendant for the time being of Nusserwanjee Ruttonjee Tata, the father of the said Jamsetjee Nusserwanjee Tata, or, if there be more than one such major male descendant in equal degree of propinquity to the said Nusserwanjee Ruttonjee Tata, then of the eldest of such male descendants in the eldest line from the said Nusserwanjee Ruttonjee Tata. (In the case of dispute as to who shall be called such descendant for the purpose of the nomination aforesaid, the same shall be referred to the Patron whose decision shall be effective and binding.) Provided that members of the Court, who are also members of the Council, shall not be eligible to serve on the Standing Committee. In each Session not later than six weeks after the receipt of the report mentioned in clause 33 of these regulations the members of the said Committee shall meet at such place as may be fixed by the Chairman to consider the said report and any other matter connected with the Institute. The said Committee shall have power from time to time to require the Council to furnish such information or particulars in connection with the Institute as may be considered necessary. The said Committee may make recommendations to the Council or the Patron. Whenever the said Committee are of opinion that any matter in connection with the Institute requires investigation or inquiry the said Committee shall report to the Patron who may then appoint a Special Committee to make such investigation or inquiry and on the receipt of the report of such Special Committee the Patron shall pass such orders as may be necessary and such orders shall be final. No extraordinary expenditure, that is to say, expenditure over and above

the usual recurring expenditure that may be budgetted for any Session. shall be made if the Standing Committee communicates to the Council its resolution that such expenditure shall not be incurred until after it has had an opportunity of communicating with the Patron thereon and until after such expenditure is eventually sanctioned by the Patron. If in any Session the Council has in view any such extraordinary expenditure for the next Session, it shall at once communicate the same to the Standing Committee with such particulars as may be necessary so as to give the Standing Committee sufficient time to consider the same and if need be to report thereon to the Patron before such expenditure shall be made. The provisions of clauses 14, 16, 17 and 18 shall apply to the Standing Committee.

36. All communications between the Council and the Senate or between the Vice-Patrons, the members of the Court of Visitors and the Council shall be carried on through the Director. All communications from the Court of Visitors or from the Council to the Patron shall be addressed through the Director. The Standing Committee of the Court of Visitors may communicate directly with the Patron.

37. The Director shall act as recorder to the Institute and shall have charge of all documents relating to the Institute other than those appertaining to the Board of Management.

38. Subject to review by the Council the Sanate shall have charge and general regulation of teaching and research within the Institute and may report to the Council or through the Council to the Patron, Vice-Patrons or Court of Visitors upon any matter connected with teaching or research.

39. The Board of Management shall look after and manage all the aforesaid endowment properties, collect the rent and other income thereof and make thereout all necessary and proper disbursements and also ascertain and set aside the amounts for sinking fund, substantial repair fund, ground rent fund and other necessary funds to make provisions for future contingencies in connection with the endowment properties which the Board shall consider necessary or proper and shall pay the net rents or other income to the Council, and shall otherwise administer the said properties, and act in the administration of the trust. The Board shall furnish to the said Treasurer such information

and abstracts of accounts as may from time to time be required by him. The funds set aside as aforesaid shall until their utilization be invested in the purchase of Government of India Promissory Notes or other public securities admissible under the Indian Trusts Act. The Board shall be at liberty from time to time to expend out of all or any of these funds such sum or sums of money as it may consider necessary or proper for improvements in, and alterations and additions to, the endowment properties. With regard to such of the endowment properties as are leaseholds the Board will arrange for payment of rents, for carrying out repairs, for insurance and generally for performance and observance of the covenants on the Lessee's part contained in the Leases under which the properties are held.

40. The Board shall hold at least one meeting every month with a maximum of three meetings per month and the fee of each member for each meeting attended by him shall be Rs. 30. The Board shall render an account of their management to the Council once every year.

41. The Board shall once every year cause all the endowment properties to be surveyed and certified as to their state and condition by the Presidency Executive Engineer or by some other competent Architect or Engineer not connected with the management of the same.

42. All acts done and engagements entered into hitherto for the purposes of the Institute by Dr. Morris W. Travers, F.R.S., the first Director of the Institute, with the authority and sanction of the said Dorabjee Jamsetjee Tata and Ruttonjee Jamsetjee Tata or of the Provisional Committee appointed at the request of the said Dorabjee Jamsetjee Tata and Ruttonjee Jamsetjee Tata prior to the notification of this Scheme to conduct the affairs of the Institute until such notification shall be binding upon the Institute.

43. The said Dorabjee Jamsetjee Tata and Ruttonjee Jamsetjee Tata have agreed to give a guarantee in the sum of Rs. 8,000 per annum to be secured upon certain immoveable property belonging to them and situated at Khar Road in Bandora, District Thana, in the Bombay Presidency, for the purpose of making up out of the same any deficit that may occur in the net annual income of the said endowment properties described in Schedule *A* to the said Vesting Order upon the terms and conditions set forth in Schedule *B* hereto.

44. None of the provisions of this Scheme shall at any time hereafter be added to, altered or varied during the lives of the said Dorabjee Jamsetjee Tata and the said Ruttonjee Jamsetjee Tata without their consent or during the life of the survivor of them without his consent or after the death of such survivor and during the life of the person appointed by such survivor to nominate representatives on the Standing Committee of the Court of visitors as provided in clause 35 without the consent of such person.



Photo-Meohl, Dept., Thomson College, Roorkee.

DEPARTMENT OF ELECTRO-TECHNICS-BATTERY ROOM.

INDIAN INSTITUTE OF SCIENCE, BANGALORE.

Patron.

His Excellency the Viceroy of India.

Vice-Patrons.

His Excellency the Governor of Madras.

His Excellency the Governor of Bombay.

His Excellency the Governor of Bengal.

His Honour the Lieutenant-Governor of the United Provinces.

His Honour the Lieutenant-Governor of the Punjab.

His Honour the Lieutenant-Governor of Burma.

His Honour the Lieutenant-Governor of Bihar and Orissa.

The Chief Commissioner, Assam.

The Chief Commissioner, Central Provinces.

The Agent to the Governor-General and Chief Commissioner,
North-West Frontier Province.

The Chief Commissioner of Coorg.

The Chief Commissioner of Ajmer-Merwara.

The Agent to the Governor-General, Baluchistan.

Director.

Vacant.

The Court of Visitors.

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|--|--|
| (1) Nominated by the Government of India. | The Accountant-General, Madras (31st March 1919). |
| (2) Nominated by the Government of H. H. the Maharaja of Mysore. | The Inspector-General of Education, Mysore State (31st March 1919).
H. V. Nanjundayya, Esq., C.I.E. (31st March 1919). |
| (3) | Sir D. J. Tata, <i>Kt.</i> (Life Member). |
| (4) | R. J. Tata, Esq. (Life Member). |
| (5) Nominated by Sir D. J. Tata and R. J. Tata, Esq. | B. J. Pādshāh, Esq. (31st March 1919).
R. Row, Esq., M.D., D.Sc. (31st March 1919). |
| (6) & (7) | ..... |
| (8) Nominated by His Excellency the Patron. | The Hon'ble Sir H. Stuart, K.C.V.O., C.S.I., I.C.S. (31st March 1918).
Sir R. N. Mookerjee, K.C.I.E., (31st March 1918).
The General Officer Commanding Southern Army (31st March 1918).
The Minister of the Hyderabad state (31st March 1918).
The Dewan of the Travancore state (31st March 1918). |
| (9) Nominated by the Vice-Patrons : | |
| By His Excellency the Governor of Madras. | The Superintendent of Industrial Education in the Madras Presidency (31st March 1917). |
| By His Excellency the Governor of Bombay. | The Hon'ble Justice Sir Dinshah Dhanjibhai Davar, <i>Kt.</i> , Bar-at-Law (31st March 1917). |
| By His Excellency the Governor of Bengal. | The Hon'ble Maharaja Manindra Chandra Nandi of Cossimbazar (31st March 1917). |
| By His Honour the Lieut.-Governor of the United Provinces. | The Hon'ble Rai Sundar Lal Bahadur, B.A., C.I.E. (31st March 1917). |

- By His Honour the Lieut.-Governor of the Punjab. The Official Member representing the Government of the Punjab on the Imperial Legislative Council (31st March 1917).
- By His Honour the Lieut.-Governor of Burma. Col. A. O. Evans, I.M.S. (31st March 1917).
- By the Chief Commissioner, Assam. J. McSwiney, Esq., M.A., I.C.S. (31st March 1917)
- By His Honour the Lieut.-Governor of Bihar and Orissa.
- By the Chief Commissioner, Central Provinces. The Hon'ble Rao Bahadur Ranganath Narasingh Mudholkar (31st March 1917).
- By the Agent to the Governor-General and Chief Commissioner, North-West Frontier Province.
- By the Chief Commissioner of Coorg. W. M. Ball, Esq. (31st March 1917).
- By the Chief Commissioner of Ajmer-Merwara. C. W. Waddington, Esq., C.I.E. (31st March 1917).
- By the Agent to the Governor-General, Baluchistan. Khan Bahadur Burjorji Dorabji Patel, C.I.E. (31st March 1917).
- (10) *Ex-Officio*. The Director General, Indian Medical Service.
- The Director of Public Instruction, Madras.
- The Director of Public Instruction, Bombay.
- The Director of Public Instruction, Bengal.
- The Director of Public Instruction, United Provinces.
- The Director of Public Instruction, The Punjab.
- The Director of Public Instruction in Behar and Orissa.
- The Director of Public Instruction in the North West Frontier Province.

The Director of Public Instruction,
Burma.

The Director of Public Instruction,
Assam.

The Director of Public Instruction,
Central Provinces.

(11) *Ex-Officio.*

Prof. Alfred Hay, D.Sc., M.I.E.E.

Prof J. J. Sudborough, D.Sc., Ph.D.,
F.I.C.

(12) Nominated by the Senates of
the Indian Universities:

By the University of Calcutta. Prof. P. C. Ray, D.Sc., Ph.D. (31st
March 1919).

By the University of Bombay. The Rev Dr. D. Makichan, M.A.,
D.D., LL.D., (31st March 1919).

By the University of Madras. W. H. James, Esq., B.Sc., A.M.I.C.E.
(31st March 1919).

By the University of Allahabad. A. W. Ward, Esq., M.A. (31st
March 1919).

By the University of The Punjab. A. S. Hemmy, Esq., B.A. (31st
March 1919).

(13) Nominated by the Council of the Indian Institute of
Science.

The Hon'ble Dr. Sir Ramkrishna
Gopal Bhandarkar, M.A., Ph.D.,
LL.D., Hon. M.R.A.S., K.C.I.E.
(31st March 1915).

Col. S. G. Burrard, R.E., F.R.S.,
C.S.I. (31st March 1915).

The Hon'ble Sir Lawrence Hugh
Jenkins, M.A., K.C.I.E. (31st
March 1915).

G. T. Walker, Esq., M.A., D.Sc.,
F.R.S., C.S.I. (31st March 1915).

The Council.

The Hon'ble the Resident in Mysore.

The Dewan of Mysore.

The Director of the Institute (*ex-officio*).

H. J. Bhabha, Esq., M.A. (31st March 1918).

Alfred Chatterton, Esq., C.I.E., B.Sc. (31st March 1917).

J. D. Ghandy, Esq., B.A., LL.B. (31st March 1918).

Prof. Alfred Hay, D.Sc., M.I.E.E. (31st March 1916).

Dr. W. F. Smeeth, M.A., D.Sc., A.R.S.M. (31st March 1917).

The Hon'ble Sir Francis Spring, K.C.I.E. (31st March 1916).

Prof. J. J. Sudborough, D.Sc., Ph.D., F.I.C. (31st March 1917).

The Senate.

Prof. Alfred Hay, D.Sc., M.I.E.E.

Prof. J. J. Sudborough, D.Sc., Ph.D., F.I.C.

The Standing Committee of the Court of Visitors.

The Hon'ble Sir H. Stuart, K.C.V.O., C.S.I., I.C.S.

The Accountant-General, Madras.

B. J. Padshah, Esq.

H. V. Nanjundayya, Esq., C.I.E.

The Board of Management of the Bombay Properties.

The Collector of Bombay.

A. J. Bilimoria, Esq.

Navroji Jehangir Gamadia, Esq.

GENERAL INFORMATION.

The Session.

The Session will commence on the first Wednesday in July and will end on the last Wednesday in March. It will be divided into three terms, and there will be a recess in October and another at Christmas.

Office Hours.

The laboratories and the offices of the Institute will be open daily between the hours of 10 a.m. and 5 p.m. and from 10 a.m. to 2 p.m. on Saturdays. By permission of the heads of the departments, students may work in the laboratories before 10 a.m. and after 5 p.m.

The library will be open during the same hours, and, in term time, from 8 to 10-30 in the evening on every day of the week with the exception of Saturdays and Sundays.

Letters, Telegrams, etc.

All letters, packages, etc., should be addressed to the Director, Indian Institute of Science, Hebbal, Bangalore District. Telegrams 'Science,' Bangalore.

Fees and Deposits.

Fees and deposits must be paid in advance in cash at the office of the Institute.

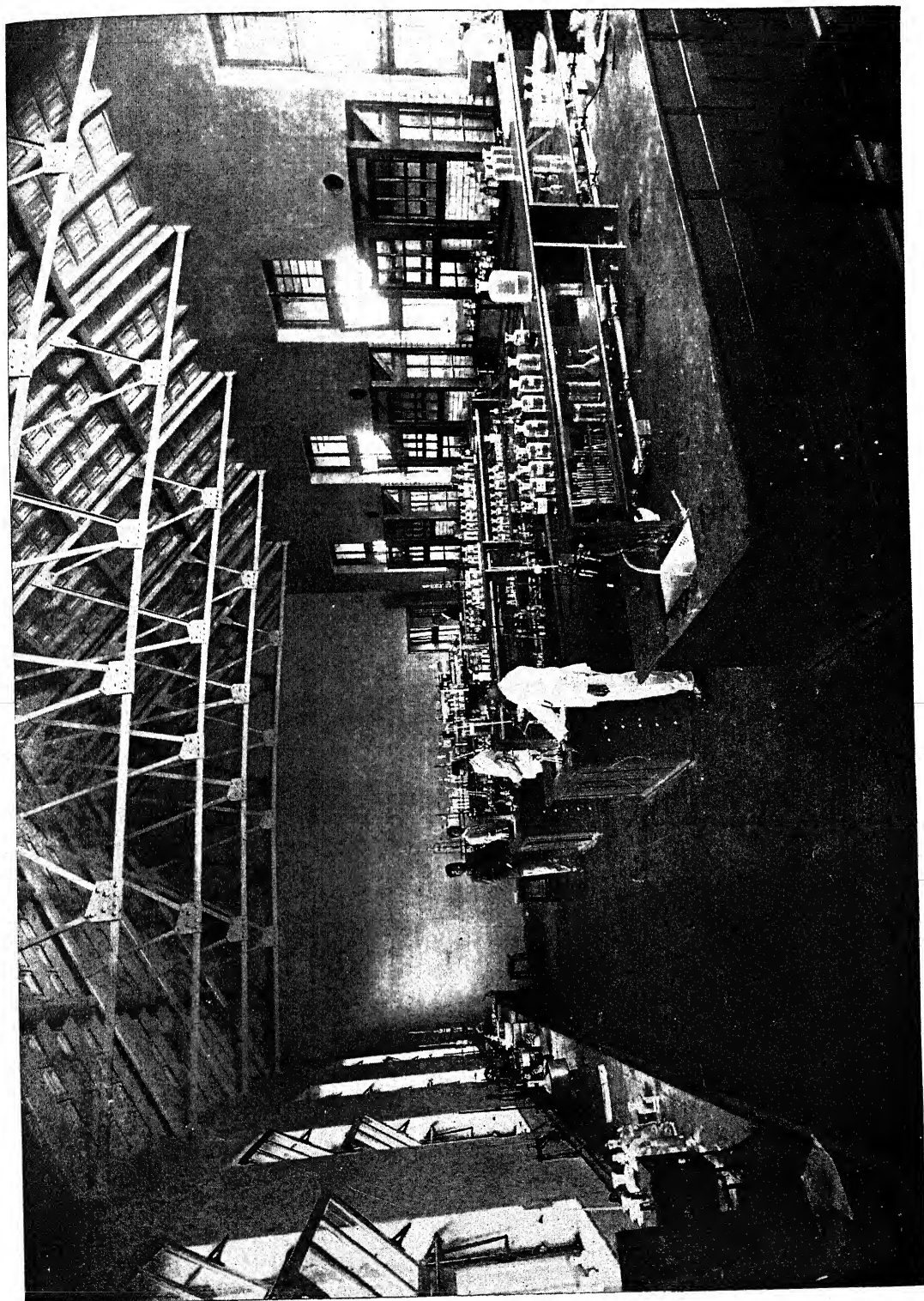


Photo.-Mechl. Dept., Thomason College, Roorkee.
DEPARTMENT OF GENERAL CHEMISTRY—MAIN LABORATORY.

Extract from the Bye-laws framed by the Council in accordance with the Regulations, and approved by the Patron.

Section I.

Definitions.

In these Bye-laws :

'Regulations' means the provisions of the Scheme for the management of the Institute accompanying the Vesting Order of 27th May 1909.

'Bye-laws' means Bye-laws made by the Council pursuant to paragraph 20 of the Regulations and approved by the Patron.

'Rules' means Rules made by the Council or other authorities in the Institute in accordance with Bye-laws.

'Year' means the academic and financial year of the Institute which commences on the first day of April and ends on the thirty-first day of March.

'Session' means the period between the first Wednesday in July in any year and the last Wednesday in March in the succeeding year. The period between one session and the next is the Long Vacation. The Session is divided into three terms and two recesses, the Dasara and the Christmas recess.

'Patron' means His Excellency the Viceroy of India.

'Court' means the Court of Visitors appointed under paragraph 9 of the Regulations.

'Council' means the Council of the Institute appointed under paragraph 10 of the Regulations.

'Senate' means the Senate of the Institute appointed under paragraph 11 of the Regulations.

'Director' means the Director of the Institute or other person appointed by or with the authority of the Council to discharge the duties of Director.

Section VIII.

The admission of students, courses of study and research.

(1) The admission of students. [Regulations, §§ 20 (4 & 9), 30, 38].

(a) Applications for admission to the Institute shall in the first instance be made in writing to the Director.

(b) Every application for admission shall be made on forms properly filled in and signed by the applicant.

(c) Every student will be admitted to the Institute on probation. Should his conduct or work not prove satisfactory, or should the Senate be of the opinion that he is incapable of taking advantage of the facilities for study and research provided in the Institute, he may be required to leave at any time.

(d) Students will be required to produce certificates proving that they have undergone such training and attained to such proficiency as may be required for admission to the particular department to which they wish to become attached. The Senate may prescribe any such additional test as they may deem necessary to prove a candidate's suitability for admission.

(e) Students will be liable to make good any loss which they may occasion to the Institute by damaging apparatus, or other property, or wasting material. Each student will be required on joining to deposit the sum of one hundred and fifty rupees to meet such liabilities or any fines, and may be required to maintain the deposit at its original value.

(2) Courses of study and research. The award of the Associateship and Fellowship. [Regulations, §§ 5, 20 (7 & 8), 30].

(a) Before a student is permitted to enter upon a course of specialized study or research he may be required to follow such course of instruction as may be considered necessary.

(b) The Associateship of the Institute may on the recommendation of the Senate be conferred by the Council on students of the Institute who have followed such course of specialized study as may have been approved by the Senate.

(c) Subject to the approval of the Patron, the Fellowship of the Institute may on the recommendation of the Senate be conferred by the Council on students of the Institute on presentation of a thesis or theses embodying the work of the equivalent of at least five complete terms.

(d) Candidates for the Associateship or for the Fellowship of the Institute shall submit to the Senate a programme of the work which they propose to undertake. Brief reports on their progress shall be submitted to the Senate at the end of every term.

(e) Candidates for the Associateship or for the Fellowship of the Institute shall be required to work within the precincts of the Institute. In any exceptional case in which the nature of the investigation makes this impossible, the candidates may be granted an exemption from this condition to such extent as may be necessary.

(f) Subject to the approval of the Patron, the Honorary Fellowship of the Institute may on the recommendation of the Senate be conferred by the Council on Associates who have afterwards achieved distinction or on persons who have rendered signal service to the Institute.

(3) Attendance.

(a) Students of the Institute are expected to dress and conduct themselves as may be customary amongst gentlemen of their race. Heads of departments may make such regulations with regard to the dress of students working in laboratories or in the neighbourhood of machinery as may be necessary in order to avoid accidents.

(b) Students will be required to attend such laboratory and lecture courses as the Senate may prescribe, and not absent themselves without adequate reason. Application for leave of absence shall be made in writing to the head of the department to which a student is attached.

(4) Residence.

(a) Students may be required to reside in the quarters provided at the Institute. The Director may grant permission to a student to reside elsewhere on the condition that such permission may be withdrawn at any time.

(b) On admission each resident student will be assigned a room and will become a member of one of the messes. He will be required to pay a fee of Rs. 10 per mensem, and in return the Institute will provide electric light and a sufficient staff of servants for each mess.

(c) The Senate may make such rules for the regulation of the use of the quarters as may be found necessary.

(5) Discipline. [Regulations, §§ 20 (6), 31, 32].

(a) The Director shall at all times have charge of all parts of the Institute buildings and of the lands assigned to the Institute and shall have authority to maintain order therein except within the limits of a department during the presence of the head of the department.

(b) Subject to the rules prescribed by the Senate the head of each department is responsible for the maintenance of discipline within his department.

(c) Any member of the professorial staff may exclude a student from his department for the remainder of any working day.

(d) The Director or the head of any department may suspend a student for a period not exceeding 48 hours, and in case such suspension shall exceed 24 hours the head of the department shall report the matter in writing to the Director. A student under suspension shall remain in his quarters. The Director or the head of a department may order that a student remain under suspension beyond the period stated above pending the bringing of his case before a Board of Discipline.

(e) The Director shall also have power—

(1) To fine a student a sum not exceeding Rs. 20.

(2) To administer a reprimand either in private or at a meeting of the Senate.

(3) To exclude a student from the precincts of the Institute for any period not extending beyond the end of the session.

(f) The Director may at any time convene a Board of Discipline which shall consist of the Director, one of the Professors, and at least one member of the Council or Court of Visitors, who may be a Professor.

(g) The judgment of the Board of Discipline may be such as might be passed by the Director under sub-paragraph (e) above and may further extend to a fine exceeding Rs. 20, exclusion from the Institute for an indefinite period, and expulsion from the Institute.

(h) If it come to the knowledge of the Director that a student of the Institute has been guilty of grave misconduct beyond the precincts of the Institute, or has been brought before a Court of Justice, he may deal with the case as provided under clauses (d) and (e).

(i) Judgments passed by the Director and the minutes of the proceedings of Boards of Discipline shall be recorded in a book. The book together with any documents relating to cases shall be laid on the table at Council meetings and shall be open to inspection by members of the Court of Visitors, of the Council, and of the Senate.

(j) Nothing in this section of the Bye-laws shall be held to take away from the Council the power which they possess of taking cognizance of the conduct of any student, or of dealing with any matter relating to discipline in the Institute as they may think fit.

SECTION X.

Meetings, Notices, etc.

(1) No meeting shall be held on the site of the Institute unless permission of the Director has first been obtained in writing except in the case of departmental meetings for which authorization must be obtained from the head of the department concerned.

(2) No notice shall be posted in any part of the premises of the Institute without the permission of the Director, except in the case of departmental notices which shall bear the signature of the head of the department concerned.

Forms of Application.

INDIAN INSTITUTE OF SCIENCE.

No.

Form of application for admission to the Institute.

A.

Name.

Degree or other qualification.

Name and occupation of father.

Race, religion, caste.

Date of birth.

Permanent postal and telegraphic addresses.

Full information with regard to the applicant's means or the assistance which he may receive from any public body.

Signed.....

INDIAN INSTITUTE OF SCIENCE.

No.

Form of application for admission to the Institute.

B.

Name.

Account of the applicant's course of studies or of the manner in which he may have been employed since leaving school, with dates. (Copies of certificates must be submitted.)

Signed.....

INDIAN INSTITUTE OF SCIENCE.

No.

Form of application for admission to the Institute.

C.

Name.

Certificate as to character.

Signed.....

INDIAN INSTITUTE OF SCIENCE.

No.

Form of application for admission to the Institute.

D.

Name.

Statement of the object with which the applicant wishes to study at the Institute. (Note:—The Institute offers no guarantee of employment.)

Signed.....

Arrangements for Students.

The conditions under which students are admitted to the Institute are laid down in the Bye-laws, (pp. 40-41.)

The quarters are in charge of a steward who is directly responsible to the Director, and an adequate staff of servants under the control of the steward is provided by the Institute. During the past session the students were divided into three messes as follows: (a) students living in European style, (b) Brahmins and Gujarathis and (c) Non-vegetarian Hindus, each mess being assigned a mess room and kitchen attached. During the next session it will be possible to increase the number of messes, and this will be done if it is found desirable. The steward has instructions to meet the wishes of the students with regard to messing arrangements as far as possible, and every effort will be made to enable students to live under the conditions to which they are accustomed.

The approximate amount of charge in each mess is as follows:—

Brahmin and Gujarathi Mess, Rs. 20 per mensem.

Non-vegetarian Hindu Mess, Rs. 25 per mensem.

European Mess, Rs. 35 per mensem.

A medical officer is appointed by the Institute, who attends twice a week, and sees students without charge.

At the commencement of each session, the students will be requested to appoint a committee from amongst their own number to serve as a medium of communication between the general body of the students and the Director on all matters which are not directly connected with their work in the several departments. This committee will also have charge of the arrangements for games, etc.

The Climate of Bangalore.

The following is an extract from H. F. Blandford's "Climates and Weather of India":—

The mean temperature of the year is 73° ; that of December and January 67° , and that of the warmest month, April, 80° . The highest temperature yet recorded is below 100° , and the lowest in winter have varied between 46° and 56° . The atmosphere is neither very damp nor very dry at any season. The mean humidity of the years is 66; that of the driest month is 49, and that of the dampest 77. The rainfall is moderate and well distributed through eight months of the year. January and February are the most rainless months; but in March there are usually one or two showers, and in April more; and from May to October 3 to $6\frac{1}{2}$ inches fall on the average in each month. The mean rainfall of the year is $35\frac{1}{2}$ inches, distributed over 96 rainy days.

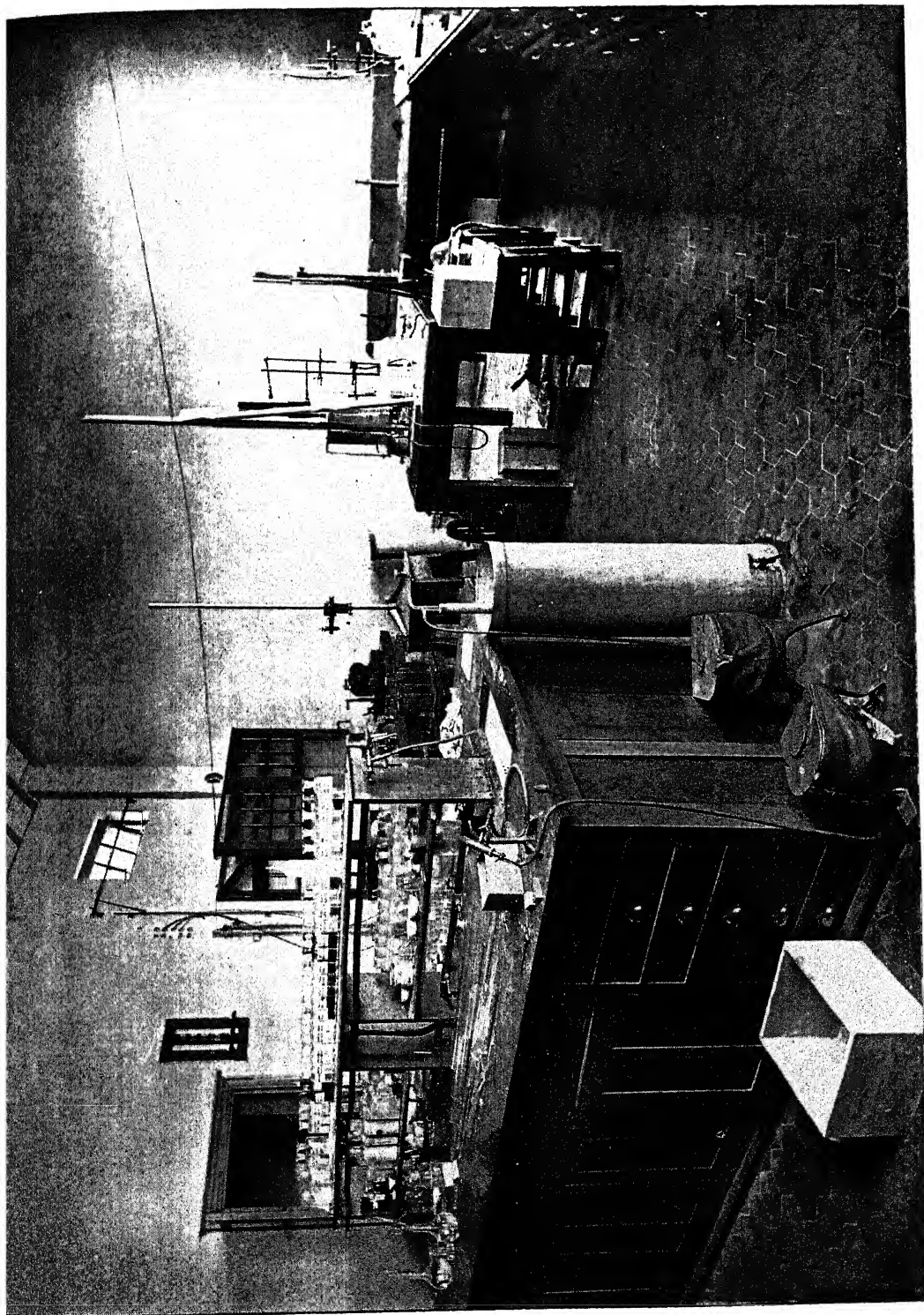


Photo.-Mechl. Dept., Thomason College, Roorkie,
DEPARTMENT OF GENERAL CHEMISTRY—A RESEARCH ROOM.



DEPARTMENTS OF THE INSTITUTE.

DEPARTMENT OF GENERAL CHEMISTRY.

Professor : J. J. SUDBOROUGH, D.Sc. (Lond), Ph.D. (Heid.), F.I.C.

Assistant Professor :—H. E. WATSON, D.Sc., (Lond.), A. I. C.

Arrangements will be made for courses of advanced study and for research in inorganic and physical chemistry. Students who are found properly qualified will be encouraged to undertake research either independently or under direction but they will first be required to prove that they have already acquired a sufficient knowledge of chemistry.

Special arrangements are made for members of the teaching staffs of Indian colleges who may wish to follow special courses of study in inorganic or physical chemistry while on leave.

The staff of the department and the students will meet once a week to discuss important papers in current chemical journals. Lectures on special subjects may be arranged during the course of the session.

The laboratory is supplied with gas and water at high pressure, and electric mains are installed throughout the building. Apparatus and chemicals are supplied free of charge. There is a well-equipped workshop in which students are permitted to work under supervision. The machine room contains a liquid air plant, motor generator, and other machinery.

Attention is called to the very complete collection of journals and works of reference on chemistry in the library.

DEPARTMENT OF ORGANIC CHEMISTRY.

Professor : J. J. SUDBOROUGH, D.Sc. (Lond), Ph.D. (Heid.), F.I.C.

The Laboratories are intended primarily for research work in Organic Chemistry.

All properly qualified students will be encouraged to undertake research either independently or under direction.

Students who possess a fair knowledge of Organic Chemistry will be allowed to carry out advanced Organic work in the Laboratories and assistance will also be given to students who desire to undertake the analysis of tannin-materials, oils, fats, etc.

A meeting of staff and students will be held once a week, when a paper on some important organic investigation will be read and discussed.

If necessary short courses of lectures on special subjects will be arranged.

Attention is called to the very complete collection of journals and works of reference on chemistry in the library.

Department of Applied Chemistry.

Professor :

The primary object of this department is to turn out men well trained in the practice of applied chemistry as a whole, and when desirable with some specialized knowledge of the applications of chemistry to some particular industry or commercial undertaking. It is important that the student should have a thorough grounding in pure chemistry, for in the Department of Applied Chemistry large scale experiments in connection with technical problems will be carried out, and nothing in the way of regular courses in pure chemistry will be offered. The department will endeavour to teach the student how to make practical use of his knowledge of chemistry ; but that knowledge he must have acquired before entering this section of the Institute.

All regular students of the department will be required to follow a course of instruction in general industrial chemistry which will treat of the operations common to many chemical processes, such as pulverisation, lixiviation, extraction, filtration, distillation, dessication, etc., in which typical plant will be considered and the whole illustrated by demonstrations and experiments with small scale working plant and machinery. In this course the various sources of raw material, the designing of plant, the utilization of by-products and waste prevention will be considered. Such subjects as the general business principles underlying chemical industry will be considered, as also factory

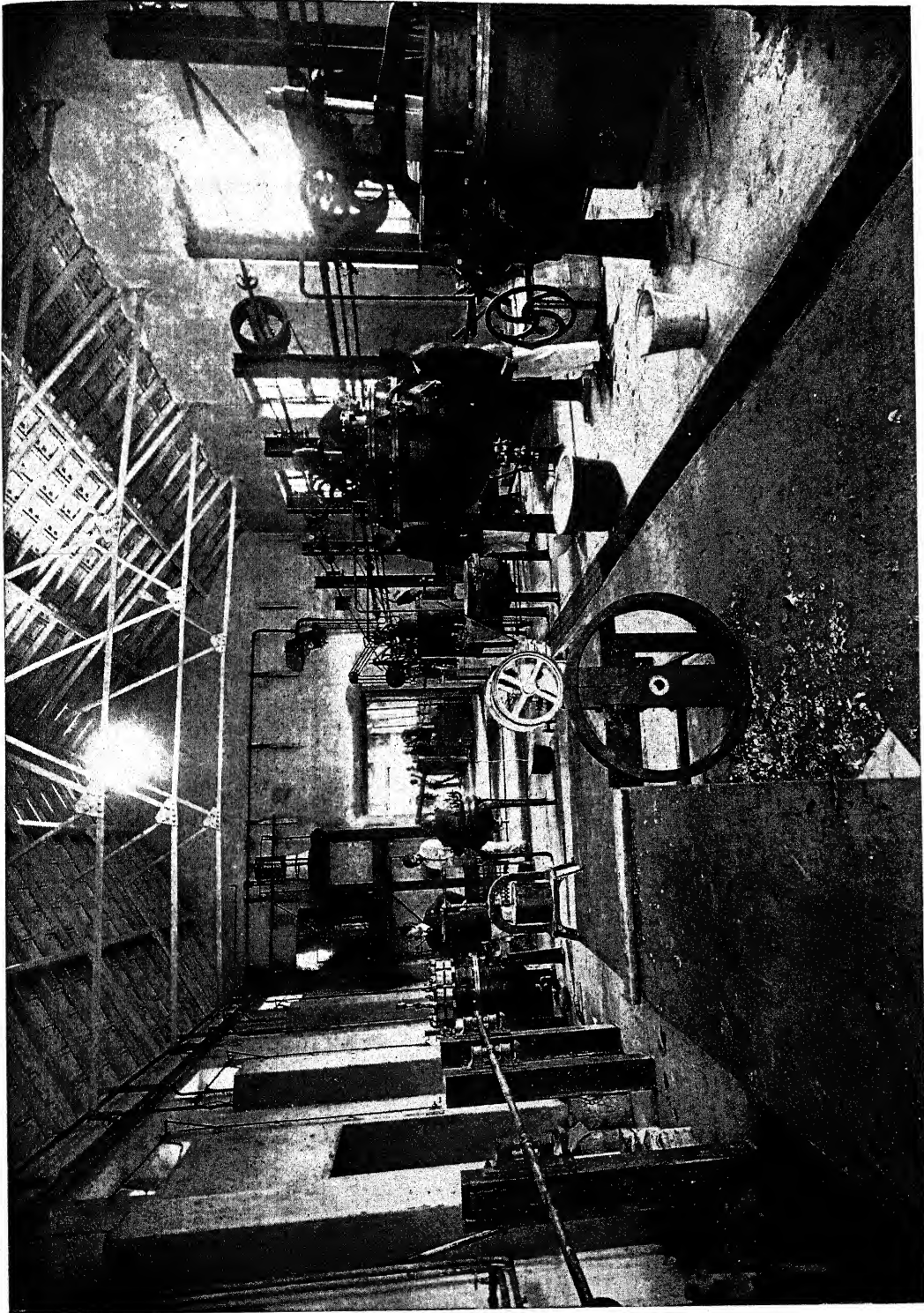


Photo-Mechl. Dept., Thomason College, Roorkee,

DEPARTMENT OF APPLIED CHEMISTRY.

organization, hygiene, patents, and in a general way, all that is likely to be of practical service to those contemplating a career as manufacturers. Students will be encouraged to plan out industrial undertakings and to evolve schemes for the founding of new industries or the improvement of existing ones.

In the case of a student who desires to acquire a knowledge of the chemical technology of some particular industry, an endeavour will be made to arrange a course of instruction suited to his individual requirements, but intending students must clearly state the special industry upon which they wish to work in their original application forms.

The front and north portions of the laboratory building are mainly occupied by the professor's private room and laboratory, lecture room, balance room, dark room and research rooms. The south portion contains the machinery room and the hall of applied chemistry, boiler-shed, workshop, etc. The hall of applied chemistry is divided into two equal parts, one half being fitted with ordinary benches to accommodate 16 students, while the other half is reserved for apparatus for large scale chemical operations, such as steam evaporating pans, stills, and furnaces. The machinery room which adjoins it contains such machines as a ball mill, mixers, filter press, vacuum dryer, and patent stills. A steam engine, and a petrol motor are provided for instructional purposes. High pressure water, electric current, and steam are available where required. Generally speaking, the laboratories are so equipped as to afford every facility for analytical work, technical research, and the carrying out of any of the general operations of manufacturing chemistry on a working scale.

List of Machinery and Plant in the Department of Applied Chemistry.

Steam Engine and Boiler, 15 H. P. (Ransomes, Sims and Jefferies, Ipswich).

Oil Engine, 7 H. P. (Crossley Bros. Ltd., Manchester).

Filter Press, 13" plates.

Vortex Mixer, 150 gall. capacity.

Hydro-extractor.

'Squirrel' Washing Machine for filter cloths, etc., and 'Ideal Wringer' (J. A. John & Co., London).

'Stag' Stone Crusher (Edgar Allen & Co. Ltd., Sheffield).

Vacuum Stove, large.

Vacuum Dryer, small.

Enamelled iron pan, steam heated with stirring apparatus, small enamelled iron pan, steam heated, enamelled iron still with stirrer, and enamelled iron autoclave (De Dietrich et Cie., Niederbronn).

Copper steam pan with condenser, rectifying column, and condenser (Brown & Son, London).

Complete Nitric Acid Plant, Earthenware Still and Worm, and large collection of chemical ware (Doulton & Co. Ltd. London).

Candle-making Machine, and melting pan for use with same (E. Cowles, London).

Small Cupola for iron founding (George Green & Co., Keighley).

Auto-recorder (The "Auto" Recorder Co., Leicester).

Exhaust Fan 36" (Adnil Electric Co. Ltd., London).

Steam-heated Oil Filter (A. C. Wells & Co., London).

Ball Mill.

Hydraulic Press.

Vacuum Pan.

Department of Electrical Technology.

Professor : ALFRED HAY, D.Sc. (Edin.) M.I.E.E.

Assistant Professors. { H. B. MATTHEWS, M.I.E.E.
J. H. C. KANN, B.Sc. (Lond.).

The equipment of the department of electrical technology has been carried out on a scale and in a manner which will enable it to

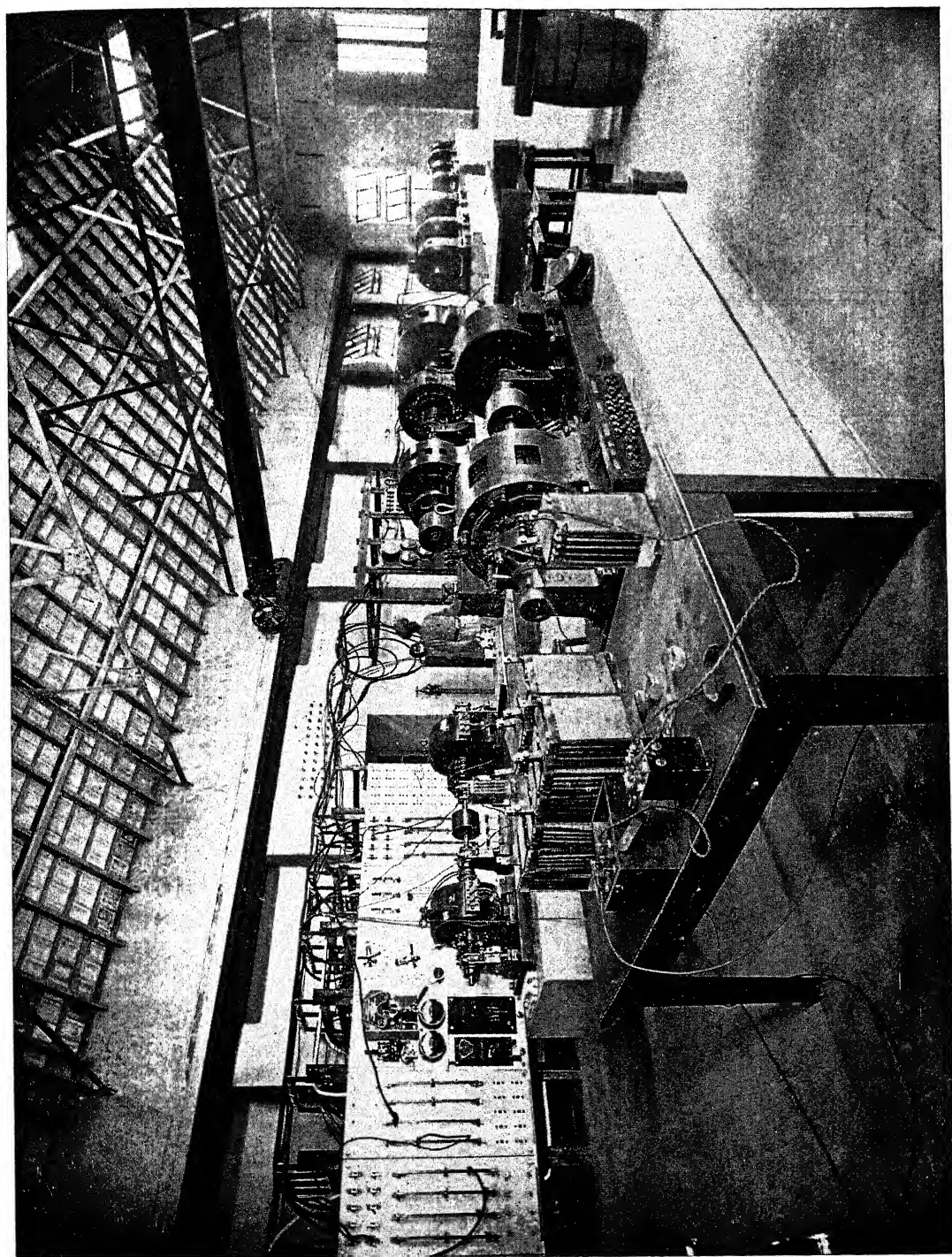


Photo.-Mechl. Dept., Thomson College, Roorkee,
DEPARTMENT OF ELECTRO-TECHNICS—MACHINE ROOM.

compare favourably with that of any high-class European or American technical college. The main feature of the equipment is the liberal provision of machinery and apparatus for carrying out work of an advanced nature, and the almost total suppression of cheap forms of apparatus incapable of giving accurate results.

The department of electrical technology has been established with the two-fold object of (1) providing advanced courses of instruction in the subject such as are unobtainable at any of the existing technical schools or colleges in India ; (2) affording to students who have undergone a course of training facilities for carrying out original investigations.

Applicants for admission to the department must either be graduates in engineering of an Indian university, or else possess equivalent qualifications. They must have a sound knowledge of higher mathematics (the differential and integral calculus and differential equations), elementary physics and chemistry, geometrical and mechanical drawing, applied mechanics and heat engines.

Owing to the vastness of the field covered by the general term "electrical technology", and the consequent necessity for specialisation, only certain branches of the subject are at present being dealt with in the department. These include generating and transforming plant, power transmission lines, distribution systems, electric lighting and traction.

A certain number of entrance scholarships, each of the value of Rs. 50 per month, are being offered by the Council to approved applicants for admission. A student who has satisfactorily completed his course and who is willing to spend an additional year at research work may in special cases be encouraged by the Council to do so by the grant of a research scholarship, of the value of Rs. 60 per month.

The course of study normally extends over three years.

As far as possible, arrangements are made whereby students spend either a portion or the whole of the long vacation (April, May, June,) in some engineering works or generating station, so as to enable them to acquire some practical experience and come into close touch

with the ordinary routine of a workshop or power station. The equipment of the department includes the following :—

Four main 2,300-136 volt step-down transformers, each of 20 kw. output.

A 200-volt secondary battery of 1,200 ampere-hours capacity.

A 50 kw. combined motor generator and rotary converter set, consisting of a three-phase alternator, a three-phase induction motor, and a continuous current generator, the latter being provided with slip-rings for both two and three-phase currents, and with a static balancer enabling it to be used as a three-wire generator.

A 30 kw. frequency changer and motor generator set, consisting of a 50-cycle three-phase alternator, a 25-cycle three-phase alternator, and a continuous current generator.

A 5 kw. continuous current set, consisting of two similar 5 kw. continuous current machines provided with sets of slip-rings for three-phase and two-phase currents, and with experimental armature coils connected to slip-rings.

A 5 kw. induction motor set, consisting of three induction motors coupled to a continuous current generator. The motors are provided with wound rotors connected to slip-rings and with special stator windings, by the use of which a large variety of different conditions of working, including the cascade method of speed control, may be studied.

A $7\frac{1}{2}$ h.p. alternate current commutator motor set, consisting of a motor of this type coupled to a continuous current dynamo. The motor has been specially designed for experimental work, and may be used either as a series motor, plain or compensated, or as a repulsion motor working under different conditions.

A 1 kw. battery milking booster set, consisting of a three-phase induction motor coupled to a continuous current generator.

A 5 kw. high voltage testing transformer, capable of giving voltages up to 30,000.

A Hospitalier's wave recorder for tracing alternating p.d. and current waves.

A very fine collection of standard measuring instruments of the highest accuracy and latest types of construction.

A complete potentiometer outfit for either continuous or alternating current measurements.

Numerous types of standard forms of switch gear.

Apparatus for carrying out magnetic tests of specimens of iron and steel.

Three photometric rooms equipped with the latest forms of apparatus for carrying out photometric investigations.

Courses in French and German.

Lecturer : C. F. H. TACHELLA, M.A. (Dublin).

Students are aided by the Librarian in the translation of passages from the French and German papers, and classes in French and German are held with a view to assisting students to attain such a knowledge of the languages as will enable them to read technical journals.

THE LIBRARY.

Librarian : C. F. H. TACHELLA, M.A. (Dublin).

Till the central building is finished, the library will be accommodated in the south wing of the electrical laboratory.

Subject to such bye-laws and rules as may be framed by the Council, the students of the Institute may use the library without special permission. Other persons wishing to make use of the library must first apply for permission in writing to the Director.

The library will be open daily between the hours of 10 a.m. and 5 p.m., and from 10 a.m. to 2 p.m., on Saturdays. In term time, the library will also be open from 8 to 10-30 in the evening of every day of the week with the exception of Saturdays and Sundays.

The following sets of journals are available for reference :—

GENERAL SCIENCE.

American Academy of Arts and Sciences, Memoirs : 1785-1903, 18 Vols.

American Academy of Arts and Sciences, Proceedings : 1848-1914, complete set, 49 Vols.

American Journal of Science : 1818-1914, complete set, 187 Vols.

Archives des Sciences Physiques et Naturelles (Geneva) : 1846-1914, complete set, 173 Vols.

Bedrock : 2 Vols.

British Association Reports : 1831-1913, complete set, 85 Vols.

Bulletin of the Imperial Institute : 1903-1913, complete set, 12 Vols.

Comptes Rendus de l'Académie des Sciences : 1835-1914, complete set, 163 Vols.

Journal of the Royal Society of Arts : 1852-1914, complete set, 64 Vols.

Nature : 1869-1914, complete set, 85 Vols.

Philosophical Transactions of the Royal Society 'A' & 'B' : complete set, 203 Vols.

Proceedings of the Royal Institution : 1851-1910, complete set, 19 Vols.

Proceedings of the Royal Society 'A' & 'B' : complete set, 102 Vols.

Science Progress : 1906-1914, complete set, 8 Vols.

Sitzungsberichte der Akademie der Wissenschaften (Berlin) : 1865-1914, complete set, 91 Vols.

Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften (Vienna) : 1848-1913, complete set, 251 Vols.

Smithsonian Contributions to Knowledge (Washington) : 1851-1907, 31 Vols.

GENERAL SCIENCE—(*contd.*)

Smithsonian Miscellaneous Collections (Washington) : 1866-1914, 42 Vols.

Smithsonian Reports (Washington) : 1863-1913, 31 Vols.

EDUCATIONAL.

Board of Education—Special Reports : 1898-1914, 20 Vols.

Carnegie Foundation for the Advancement of Teaching, Bulletins : (current) 3 Vols.

Report of the Commissioner of Education (U.S.A.) : 1886-1911, 48 Vols.

Report of the Congress of the Universities of the Empire : 1912, 1 Vol.

GEOLOGICAL.

Quarterly Journal of the Geological Society of London : 1845-1914, complete set, 71 Vols.

PHYSICAL.

Abhandlungen der Akademie der Wissenschaften (Berlin) (current).

Abstract Bulletin of the Physical Laboratory of the National Electric Lamp Association (U.S.A.) : (current).

Annalen der Physik (Poggendorff) : 1824-1914, complete set, 286 Vols.

Astrophysical Journal (U. S. A.) : 1911-1914, 7 Vols.

Beiblätter Annalen der Physik (Poggendorff) : 1877-1913, complete set, 39 Vols.

Berichte der Deutschen Physikalischen Gesellschaft : 1903-1914, complete set, 16 Vols.

Bulletin of the Bureau of Standards (Washington) : 1904-1914, complete set, 11 Vols.

Bureau International des Poids et Mesures :—

Procès-Verbaux : 8 Vols.

Travaux et Mémoires : 5 Vols.

Philosophical Magazine : 1813-1914, complete set, 178 Vols.

Physical Review (U.S.A.) : 1894-1914, complete set, 39 Vols.

Physikalische Zeitschrift : 1899-1914, complete set, 17 Vols.

Science Abstracts 'A' : 1898-1914, complete set, 17 Vols.

ENGINEERING.

- American Institute of Electrical Engineers, Proceedings and Transactions: 1884-1914, complete set, 42 Vols.
 Electric Journal: 1904-1914, complete set, 11 Vols.
 Electrical Engineering: 1907-1914, complete set, 10 Vols.
 Electrical Review: 1908-1914, 14 Vols.
 Electrical World (U. S. A.): 1908-1914, 14 Vols.
 Electrician: 1878-1914, complete set, 73 Vols.
 Elektrotechnik und Maschinenbau (Vienna): 1908-1914, 7 Vols.
 Elektrotechnische Zeitschrift: 1880-1914, complete set, 35 Vols.
 Engineering: 1912-1914, 5 Vols.
 Engineering and Mining Journal (U.S.A.): 1878-1914, 33 Vols.
 Iron and Steel Institute, Carnegie Scholarship Memoirs: 6 Vols.
 Journal of the Iron and Steel Institute: 1871-1914, complete set, 92 Vols.
 Lumière Electrique, La: 1908-1914, complete set, 26 Vols.
 Proceedings of the Institution of Mechanical Engineers: 1847-1913, complete set, 70 Vols.
 Science Abstracts 'B': 1903-1914, 12 Vols.
 Zeitschrift des Vereines Deutscher Ingenieure: (including Technik und Wirtschaft) 1910-1914, 12 Vols.

CHEMICAL.

- American Chemical Journal: 1879-1914, complete set, 47 Vols.
 Analyst: 1911-1914, 4 Vols.
 Annales de Chimie et de Physique: 1847-1914, from 5th Series, 125 Vols.
 Annual Report on the Progress of Chemistry: 1904-1913, 8 Vols.
 Archiv der Pharmazie: 1911-1913, 3 Vols.
 Berichte der Deutschen Chemischen Gesellschaft: 1868-1914 132 Vols.
 Bulletin de la Société Chimique de France: 1858-1914, complete set, 118 Vols.
 Chemical Abstracts (U. S. A.): 1907-1914, complete set, 22 Vols.
 Chemical Engineering and the Works Chemist: 1911-1914, 4 Vols.

CHEMICAL—(*contd.*)

- Chemical News : 1860-1914, complete set, 56 Vols.
 Chemical Trade Journal : from 1908, 13 Vols.
 Chemisches Zentralblatt : from 1897, 49 Vols.
 Jahrbuch der Organischen Chemie (Stuttgart): 4 Vols.
 Jahrbuch der Radioaktivität und Elektronik : 1905-1914, complete set, 11 Vols.
 Journal de Chimie Physique: 1903-1914, complete set, 13 Vols.
 Journal de Pharmacie et de Chimie : 1834-1914, from Series 7, 1910, 11 Vols.
 Journal für Praktische Chemie : 1834-1914, complete set, 199 Vols.
 Journal of Industrial and Engineering Chemistry : 1909-1914, complete set, 6 Vols.
 Journal of Physical Chemistry (U. S. A.): 1896-1914, complete set, 18 Vols.
 Journal of the American Chemical Society : 1879-1914, complete set, 31 Vols.
 Journal of the Chemical Society of London : 1849-1913, complete set, 151 Vols.
 Journal of the Institute of Metals : 1909-1914, complete set, 12 Vols.
 Journal of the Society of Chemical Industry : 1882-1914, complete set, 35 Vols.
 Kolloid-Zeitschrift, and Beihefte : 10 Vols.
 Liebig's Annalen der Chemie : 1832-1914, complete set, 212 Vols.
 Monatshefte für Chemie : 1880-1913, complete set, 36 Vols.
 Pharmaceutical Journal : 1841-1914, complete set, 83 Vols.
 Proceedings of the Chemical Society : 1885-1914, complete set, 30 Vols.
 Proceedings of the Faraday Society : 1 Vol.
 Proceedings of the International Congress of Applied Chemistry : 1909 and 1912.
 Recueil des Travaux Chimiques des Pays-Bas et de la Belgique : 1882-1914, complete set, 33 Vols.

CHEMICAL—(contd.)

Sammlung Chemischer und Chemisch-technischer Vorträge :
1896-1914, complete set, 20 Vols.

Schimmel & Co's Reports : from 1909, current.

Transactions of the American Electrochemical Society : 1902-
1913, complete set, 25 Vols.

Transactions of the Faraday Society : 1905-1913, complete set,
8 Vols.

Wellcome Chemical Research Laboratory (Papers): current
Zeitschrift für Angewandte Chemie : 1887-1914, complete set,
40 Vols.

Zeitschrift für Anorganische Chemie : 1892-1914, complete
set, 88 Vols.

Zeitschrift für Chemie : 1865-1871, 7 Vols.

Zeitschrift für Elektrochemie : 1894-1914 : complete set, 21
Vols.

Zeitschrift für Physikalische Chemie : 1887-1914, complete
set, 91 Vols.

Zeitschrift für Physiologische Chemie : 1877-1914, complete
set, 93 Vols.

AGRICULTURAL.

Bulletin of the Bureau of Agricultural Intelligence and of
Plant-Diseases (Rome) : 1912-1914, 8 Vols.

Landwirtschaftlichen Versuchs-Stationen : 1859-1914, com-
plete set, 81 Vols.

BIOLOGICAL.

Archiv für Protistenkunde : 1902-1914, complete set, 36 Vols.

Biochemical Journal ; 1906-1914, complete set, 8 Vols.

Biophysikalisches Centralblatt : 1905-1909, complete set, 4
Vols.

Journal of Biological Chemistry (U. S. A.) : 1905-1914, com-
plete set, 20 Vols.

Wellcome Research Laboratory Reports (Khartoum) : 1904-
1911, 6 Vols.

Zentralblatt für Biochemie und Biophysik : 1903-1914, com-
plete set, 17 Vols.

BIOLOGICAL—(*contd.*)

Zentralblatt für Zoologie Allgemeine und Experimentelle Biologie (formerly 'Zoologisches Zentralblatt'); 1894-1914, complete set, 23 Vols.

Zoologischer Jahresbericht (Naples): 1879-1912, complete set, 43 Vols.

MISCELLANEOUS.

International Catalogue of Scientific Literature: complete to date, 199 Vols.

Parliamentary Reports.

Proceedings and Business under Weights and Measures.

Report of the Warden of the Standards.

Report on the Metric System.

Tables Annuelles de Constantes et Données Numériques : 1910-1912: 3 Vols.

GOVERNMENT OF INDIA AND OTHER PERIODICALS PUBLISHED IN INDIA.

AGRICULTURAL.

Agricultural Journal of India: 1906-1914, complete set, 9 Vols.

Agricultural Ledger: 1896-1912, 16 Vols.

Agricultural Statistics of India { Vol. I. British India: 1897-1912, 11 Vols.
Vol. II. Native States: 1897-1911, 10 Vols.

Area and Yield of Crops: 1891-1914, 4 Vols.

Bulletin of the Agricultural Research Institute, Pusa: from 1907.

Memoirs: Department of Agriculture-Bacteriological: (current)

Do. do. do. Botanical: 1906-1914, complete set, 8 Vols.

Do. do. do. Chemical: 1906-1913, complete set, 3 Vols.

Do. do. do. Entomological: 1906-1913, complete set, 4 Vols.

Do. do. do. Veterinary: (current).

Planters' Chronicle, Bangalore: 1906-1914, complete set, 18 Vols.

Proceedings of the Board of Agriculture in India: 1909-1911.

ARCHÆOLOGICAL.

Annual Report of the Archæological Survey of India.
Archæological Reports of the following Provincial Govern-
ments :—

Bengal.
Bombay.
Burma.
Madras.
North-West Frontier Provinces.
Punjab.
United Provinces.

Conference of Orientalists (Report).
Mysore Geological Department Publications.

COMMERCIAL INTELLIGENCE DEPARTMENT.

Coal : Note on the Production and Constitution of Coal in
India.

Coffee : Note on the Production of Coffee in India.

Cotton Seed : Indian Cotton Seed.

Cotton Spinning : Statistics of Cotton Spinning and Weaving
in the Indian Mills.

Financial and Commercial Statistics of British India.

Indian Trade Journal : 1906-1914, 35 Vols.

Judicial and Administrative Statistics of British India.

Prices : Variations in Indian Price Levels.

Statistics of British India (i) Industrial.

Do. do. do. (ii) Commercial.

Do. do. do. (iii) Commercial Services.

Do. do. do. (v) Public Health.

Do. do. do. (vii) Educational.

Do. do. do. (viii) Local Funds.

Sugar : Notes on Sugar in India.

Tariff Schedules.

Tea : Note on the Production of Tea in India.

Trade : Accounts of the Trade carried by Rail and River in
India.

Trade : Sea-Borne Trade and Navigation of British India.

Wheat Elevators for India.

EDUCATIONAL.

Collegian : 7 Vols.

Indian Education : from 1910, 4 Vols.

Progress of Education in India.

ENGINEERING.

Indian Engineering : 6 Vols.

Indian Industries and Power : 1 Vol.

FAUNA.

Fauna of British India : 33 Vols.

GEOLOGICAL.

Geological Survey of India: Memoirs: 1854-1913, complete set,
41 Vols.

Do. do. do. Palaeontologia Indica, complete set,

Do. do. do. Records : 1868-1913, complete
set, 23 Vols.

Mysore Geological Publications.

Transactions of the Mining and Geological Institute of India:
1907-1911, 3 Vols.

INDIAN MUSEUM.

Memoirs of the Indian Museum : 2 Vols.

Records of the Indian Museum : 1907-1912, 7 Vols.

Reports of the Marine Survey Ship 'Investigator.'

METEOROLOGICAL.

Memoirs of the Indian Meteorological Department: from 1904.

Monthly Weather Review and Annual Summary : from 1908.

Mysore Meteorological Department Publications.

Report on Rainfall.

MISCELLANEOUS.

Asiatic Society of Bengal : Journal and Proceedings : 8 Vols.

Board of Scientific Advice for India : Annual Report : com-
plete set.

Bulletins of the Indian Association for the Cultivation of
Science : (current).

Journal of the Mythic Society, Bangalore : 1909-1912, 3 Vols.

Journal of the South Indian Association : (current).

Report of the Indian Industrial Conference.

GAZETTES.

Gazette of India, Part VII—Patents and Designs.

Assam.

Bombay.

Burma.

Calcutta.

Fort St. George.

Mysore.

Punjab.

United Provinces of Agra and Oudh.

Offices of the Institute.

Manager.—MR. B. GUNDU RAU.

Steward, Students' Quarters.—MR. B. GURU RAO.

List of Students for 1914-1915.

1. Chowna, Cawasji Pallonji, B.A. (Bombay).
2. Dordi, Kersasp Mancherji, B.Sc. (Bombay).
3. Gadre, Shankar Trimbak, M.A. (Bombay).
4. Ghose, Khagendranath, B.SC. (Bengal).
5. Kale, Purushottam Balkrishna, B.SC. (Bombay).
6. Khambati, Natvarlal Ranchhodlal, B.A. (Bombay).
7. Kolhatkar, Gopal Balakrishna, M.A. (Bombay).
8. Lakhmalani, Jamitrai Vishindas, B.SC. (Bombay).
9. Menon, Padmanabha, K. P., B.A. (Madras).
10. Mowdawalla, Framroze Nusserwanji, M.A., B.SC. (Bombay).
11. Pant Vaidya, Mahadev Vaman, B.SC. (Indore).
12. Raja Rau, M. R., B.A. (Madras).
13. Ramasami Ayengar, T. K., B.A. (Madras).
14. Sankar Rao Badami, M.A. (Mysore).
15. Sathaye, Vinayak Ganesh, M.A. (United Provinces).
16. Tirunarayanan, M.B., B.A. (Mysore).
17. Warden, Hirjibhoy Byramji, B.A., B.SC. (Bombay).

Distribution of Students according to Provinces.

Bombay	...	...	...	9
Madras	...	...	...	3
Bengal	...	...	...	1
Indore	...	...	...	1
Mysore	...	...	...	2
United Provinces	...	...	...	1
Total ...				17

List of Associates and Certificate Holders.

ASSOCIATES.

DEPARTMENT OF GENERAL CHEMISTRY.

Mr. N. M. Gupta, B. Sc.

Mr. R. C. Ray, M. Sc.

DEPARTMENT OF GENERAL & ORGANIC CHEMISTRY.

Mr. G. B. Kolhatkar, M. A.

DEPARTMENT OF ORGANIC CHEMISTRY.

Mr. D. D. Kanga, M. A.

Mr. H. K. Sahiar, M. A.

CERTIFICATE HOLDERS.

DEPARTMENT OF GENERAL CHEMISTRY.

Mr. G. B. Pal, M. Sc.

DEPARTMENT OF ORGANIC CHEMISTRY.

Mr. S. G. Banker, M. A.
Mr. N. B. Bhagavat, M. A.
Mr. B. B. Dhavale, M. A.
Mr. S. T. Gadre, M. A.
Mr. B. A. Mehta, M. A.
Mr. B. Sankar Rao, M. A.

DEPARTMENT OF APPLIED CHEMISTRY.

Mr. S. A. J. Rizvi, B. A., B. Sc.

DEPARTMENT OF ELECTRICAL TECHNOLOGY.

Mr. D. V. Ayya.
Mr. M. H. Bhatt.
Mr. P. C. Chakravarthi, B. A.
Mr. N. R. Mistry, B. A., B. Sc.
Mr. J. M. Parikh,
Mr. P. Subba Rao, B. A.
Mr. R. N. Tiwari, B. Sc.
